



INTERNATIONAL DESIGN COMPETITION
RED BULL RING SPIELBERG

21-25/07/2024

Focus on nanometers.



Seeing beyond



Engineering at ZEISS

57 billion transistors on a few square-centimeters of silicon – high-performance microchips conducting paths now only take measurements in nanometers thanks to ZEISS semiconductor manufacturing technology. That's because these increasingly powerful microchips are made using EUV lithography with ZEISS optics. Camila, a development engineer, tests the interaction between these optical components and is fascinated by these complex machines. "Our EUV systems consist of more than 35,000 individual parts and weigh 3.5 tons. Developing these systems as a team is awe-inspiring."

We need more people like Camila for these kinds of developments; we need you. Learn more about jobs at ZEISS: zeiss.com/engineering

15 YEARS. THOUSANDS OF STUDENTS. ONE SPIRIT.

Dear friends of Formula Student Austria,

The first Formula Student Austria event has taken place 15 years ago. Not only the automotive world has changed since then. Beside all technological innovations we have seen new approaches in many different aspects of life.

One thing remains unchanged: The spirit of Formula Student and the enthusiasm of students all over the world.

Spending most of the past 15 years in professional motorsport I'm always amazed by the effort and passion of formula student teams. When I first attended a race weekend as a professional, I was surprised how well organized it could be when Formula Student people would run the teams. Any professional motorsport team around the world will be happy with the experience and skills you gain with this racing series.

Formula Student Austria was founded 15 years ago with the approach to create an event for students, not for making profit. This has remained unchanged since then and you can feel this spirit throughout all FSA staff.

When we started with 24 combustion cars in 2009 there was a vision of an event. Thanks to the passion of all involved people over the past years this vision has become reality. All sponsors must be honored as well, without them these past 15 years would not have been possible.

Being on top of the table in the ranking of events all over the world is the best way to award FSA and all people involved. We are excited to hold the FS world council this year for the first time in Spielberg, which underlines the standing of the event throughout the world.

It makes me happy to see people coming back to the Austrian event every year. You can see former students coming as staff or judges, some come back with their companies as sponsors, some come back to support their former team. Thanks to everyone for making it a great event! To all competing teams I wish the best of luck and have fun!

Keep on racing!



Franz Rabel
& the FSA Team

IMPRINT

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FSA TEAM

STEERING COMMITTEE



Responsibility
Event Manager

Christoph Hirt

Christoph Hirt, who took over the torch as event manager in 2016, is determined to expand FSA's leadership in the „small but mighty“ class of FSAE events. He hit the [FSAE] ground running during the formation of an FSE Team 2009 and joined FSA in 2013.



Responsibility
Dynamic Events

Alexander Rauch

After years of work as junior dynamics guy, Alexander advanced to Head of Dynamics for the 2019 Event. As FS Suspension team leader he knows how to push Formula Student cars to their limits.



Responsibility
**Dynamic Events,
Timing, IT**

Manuel Seeböck

After some years of E-scrutineering and work in the dynamics area, Manuel became joint Head of Dynamics in 2019. He also makes sure the timing and IT equipment don't act up.



Responsibility
**Rules,
International
Relations**

Lukas Raschendorfer

After multiple years as „Sparkie“ for both C&E FSAE cars, Lukas joined FSA and is now responsible for the rules and statics, a racecar engineer by day, a designer by night he also creates FSA's graphical designs and herds the lolcats.



Responsibility
**Head of
Scrutineering,
Rules**

Paul Mayr-Harting

Paul has been a member of the Formula Student community since 2012 and is an expert in the field of chassis. Therefore, he is predestined to be the chief scrutineer and the head of the SES.



Responsibility
**Head of
E-Scrutineering,
ESF**

Eugen Hoffelner

As an all-time pro in the FSE community, Eugen brings the necessary calmness to keep track of all the e-cars. During the day you can find him in the scrutineering or battery tent and in the evening he also likes to take a tour across the campsite.



Responsibility
**Head of Statics,
Scoring**

Thomas Gerstorfer

As Head of Design Thomas knows how to bring students to their limits of knowledge. He is an expert on vehicle dynamics with a lot of experience not only in Formula Student but also in the automotive industry.



Responsibility
**Head of Media,
Partner Relations**

Romana Močnik

Romanas passion for Formula Student started in 2012 at the weasels. She's been now supporting FSA for a couple of years in the fields of Media which means Communications, Marketing & Social Media. Moreover she is a part of Partner Relations.



Responsibility
**Human Resources,
Organisation**

Carolin Bong

Her first step at FSA was directly in the business finals as judge. Caro is now the mastermind behind the HR planning, knowing all the stories and being the fairy godmother of FSA.



Responsibility
Organisation

Alexander Kinzer

Solving all kinds of small problems for FSAE Teams is his favorite activity. After collecting Formula Student experience in the pits since 2015, Alex is now available for all sorts of questions at the help desk of FSA.

FSA TEAM

SPECIAL FORCES



Franz Rabel
Responsibility
Head of Business



Sebastian Frager
Responsibility
Head of Cost



Maximilian Jauck
Responsibility
Head of Design



Titus Meier-Kraut
Responsibility
Mechanical Scrutineering



Sebastian Kern
Responsibility
Head of SES



Eva Stephan
Responsibility
SES Specialist



Steffen Schmitt

Responsibility
IAD Specialist



Michael Neuhauser

Responsibility
Website, IT



Romana Kunst

Responsibility
Partner Relations



Svenja Mayer

Responsibility
Partner Relations



Ursula Saler

Responsibility
HR & Partner Relations



Klemens Körner

Responsibility
Tents & Technics



Paul Stechele

Responsibility
Logistics & Lifting



Johannes Hundschell

Responsibility
Logistics



Stefan Oechslein

Responsibility
Livestream & Brand Design



Juliane Freudenstein

Responsibility
Media & Brand Design



Adriana Dugum

Responsibility
Social Media

AWESOME STAFF

AWESOME STAFF





FSA PARTNERS



AUDI

We are progress. With you.

Progress is part of our DNA. It's not just in our cars, but in us too. And in you. We make progress together. With inner drive. With the aspiration to become better and better. With attitude, with courage, with confidence. Because progress comes from the head – and the heart. Find out how to join the four rings now.



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At Bosch, we care. For you, our business, and our environment. Our promise to our associates is rock-solid: we grow together, we enjoy our work, and we inspire each other. Join in and feel the difference. Apply Now!



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Seeing beyond

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Let us introduce ourselves.

ZEISS is technology. ZEISS is optics and innovation. Our over 43,000 colleagues develop, manufacture and sell highly innovative products and solutions for our customers in a variety of business fields, generating revenue of over €10,1 billion.

As one of the world's top technology companies, ZEISS has a portfolio aligned with future growth areas like digitalization, healthcare and Smart Production. As a strong brand, ZEISS is shaping the future far beyond the optics and optoelectronics industry.

The company's significant, sustainable investments in research and development lay the foundation for the success and continued expansion of ZEISS' technology and market leadership. Founded in 1846 in Jena, the company is headquartered in Oberkochen, Germany. The Carl Zeiss Foundation, one of the largest foundations in Germany committed to the promotion of science, is the sole owner of the holding company, Carl Zeiss AG.

This is what drives you.

Team players with an innovative spirit. Experts with real depth. People who share their knowledge and are thirsty to learn more, unleash their potential and leave their mark.

We're looking for people who are empathetic and passionate, who are committed to achieving their goals and who get excited about challenging topics. People who achieve great things and push the limits of what is possible. Who always strive to develop, accept responsibility, and take society into the future. As the global TEAM ZEISS. Welcome to ZEISS!



www.zeiss.com/career



EDAG

Your global mobility and industry engineering experts

Our 360° engineering competence for vehicles and production solutions and our independence make us an acknowledged engineering partner throughout the entire development process: from strategy development through the concept phase and series production to production planning and optimisation. We are in an ideal position to further expand our role as the world's largest independent engineering partner.

Our segments:

- Vehicle development
- Electrics/Electronics
- Production solutions
- Software & digitalization

Together, we are innovative, develop new technologies and set trends in engineering. We help one another with professional and personal challenges. Success is celebrated as a team. Join us now.



www.edag.com



MAGNA

Forward. For all. Shape an innovative future of mobility with us.

Magna is a mobility technology company and one of the world's largest automotive suppliers with 343 manufacturing facilities and 105 product development, engineering and sales centres in 28 countries. We have more than 180,000 entrepreneurial employees dedicated to providing mobility solutions.

Whether components, subsystems or complete vehicle construction: only Magna has comprehensive systems expertise. This is what has made the Group a trusted partner to the industry for decades. We don't just face the challenges of tomorrow – we embrace them and create holistic solutions in the areas of electrification, mobility and beyond – with the aim of supporting you in the development of the vehicle of the future. This is how we move forward.

Whether you are a student, young professional or apprentice, Magna focuses on the development of each individual. Through selected programmes, students have the opportunity to gain professional experience in the form of internships or student assistant positions and gain insights into the exciting field of the automotive industry.

Dream big. With us.

Start your career and become part of the Magna team!



www.magnacareers.com



ALPITRONIC

Alpitronic GmbH, based in Bolzano, the state capital of South Tyrol, located in the middle of the Italian Alps, is a tech company renowned for its state-of-the-art DC fast charging stations for electric vehicles, with power ranges between 50 kW and 400 kW. Founded in 2009 as a start-up for developing power electronic systems, the company initially focused on various development activities for both the automotive and industrial sectors. In 2017, Alpitronic GmbH launched its first fast charger. Since then, the company has redefined electric mobility with its signature Hyperchargers being involved in the development, production, and commercialization of its products promoting sustainable mobility and now has 1,000 employees.

Alpitronic's corporate culture is rooted in diverse teams, solid partnerships, and technological expertise, qualities that have made it a benchmark in the industry.

Shape the future of mobility

Be part of a dynamic, collaborative, forward-looking team. Join our team to help develop, build, and maintain the world's most efficient and reliable DC fast chargers. Work alongside experts in our power cycling department to maintain excellence in power electronics systems. Discover your perfect career opportunity here:



www.alpitronic.it/en/careers

Schaeffler Group – We pioneer motion

The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for over 75 years. With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, chassis solutions, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. The motion technology company manufactures high-precision components and systems for drive train and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications.

The Schaeffler Group generated sales of EUR 16.3 billion in 2023. With around 83,400 employees, the Schaeffler Group is one of the world's largest family-owned companies and one of the most innovative companies in Germany. Our employees are our most valuable asset. Together we make motion safer, cleaner and smarter. We see the challenges of the future as opportunities, which is why – as motion technology company – we want to be pioneers in all aspects of our work. In doing so, we rely on an innovative, open and trusting work environment.

Join our team – and make the world move smarter as you take your career to the next level:



www.schaeffler.com/careers

**ITK ENGINEERING****ITK Engineering: Digital engineering at its best!**

Anything goes, from embedded systems to cloud computing and artificial intelligence – This is what ITK is all about. We bring cross-industry intelligence into systems and jointly shape the digital world of tomorrow. With around 1,300 employees ITK is an innovative force in digital engineering. Customers in sectors ranging from automotive, industrial, and railway engineering to medical systems, agricultural/ construction machinery, and motorsports count on us to instill intelligence in highly complex systems.

ITK is all about digital engineering. For 30 years, we have been pointing the way at this crossroads where information technology and engineering meet. Rather than focusing narrowly on individual components, we keep our eye on the overall system. Founded in 1994, ITK Engineering is headquartered in Rülzheim/ Karlsruhe with another nine locations in Germany and five international locations. The company has been a wholly owned subsidiary of Robert Bosch GmbH since 2017.



www.itk-engineering.com



KLIMA ENERGIE FONDS

As a vital instrument of the „integrated national energy and climate plan“ (NEKP), the climate and energy fund works towards achieving the objectives of domestic climate policy in Austria and developing a sustainable energy system. With funding programmes for research, development and market penetration, it enables broad-based solutions that mitigate climate change and preserve the natural habitat. The Climate and Energy Fund receives funding from the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) and supports projects for the innovative transformation of the energy and mobility system for a fossil-free future. Sustainability and efficiency are important cornerstones of all measures. The Climate and Energy Fund law formulates three target areas on which the sponsorship strategy of the climate fund is orientated.

- Research and development in the area of sustainable energy technologies and climate research,
- Boosting projects in the area of public local and regional transport, environmentally friendly goods transport and mobility management projects and
- Boosting projects for supporting the market penetration of sustainable energy technologies relevant to the climate.



www.klimafonds.gv.at

Mercedes-Benz G GmbH – The most exciting combination of precision and emotion:

As the only automotive OEM (Original Equipment Manufacturer) in Austria, we are responsible for and control all relevant processes related to the G-Class at our Graz location, from development and controlling to production with our production partner Magna. In doing so, we combine the close-knit culture of a medium-sized company with the professionalism and global expertise of our parent company, Mercedes-Benz AG. We do this with great passion and a lot of personal freedom. Our exceptional team spirit and willingness to go the extra mile enable us to further expand our technology leadership in the off-road sector and set new standards in off-road vehicle construction. Become part of the best off-road vehicle in the world!



www.mercedes-benz-g.at

The International Vienna Motor Symposium takes place annually and is one of the worldwide leading events of this kind. At the International Vienna Motor Symposium, more than 1,000 decision-makers from the most important enterprises of the worldwide automotive engineering industry meet. The three-day programme offers a variety of ground-breaking lectures and allows sufficient time for exchange of opinions and networking. This top-level lecture programme is accompanied by an exhibition at which leading automotive and component companies present latest technologies and developments. The lectures of the International Vienna Motor Symposium can be ordered from the Austrian Society of Automotive Engineers (ÖVK) (<https://wiener-motorensymposium.at/en/conference-documents/>, info@oevk.at). Next year's 46th International Vienna Motor Symposium will take place from 14 to 16 May 2025 in the Hofburg Conference Centre Vienna.



www.wiener-motorensymposium.at



PIA AUTOMATION HOLDING GMBH

Creating efficiency - achieving significantly more efficiency with clever and creative solutions. This is the guiding principle of the PIA Automation companies that have joined forces in the PIA Group. PIA stands for the best mechanical engineering quality and is growing expansively worldwide. With a know-how that has been continuously expanded over decades and more than 8,700 realized projects, the company is today one of the world's leading automation specialists. More than 1,850 employees at 12 networked locations in Europe, North America and Asia make PIA a partner around the globe that thinks ahead reliably, flexibly and sustainably in the fields of automotive, energy storage, life science, industrial goods, electronics and components automation.

The automation of production processes is crucial for the challenges of our time. PIA aims to increase the economic performance of production for each individual customer project - by minimising the use of costly resources. With a global service portfolio and its own Industry 4.0 solutions, PIA offers its customers decisive advantages in plant operation and the digitalisation of production.



www.piagroup.com

FORMULA STUDENT

SCOPE & HISTORY

Formula SAE Rule A1.1: Competition Objective

„The Formula SAE® Series competitions challenge teams of university undergraduate and graduate students to conceive, design, fabricate, develop and compete with small, formula style, vehicles.“

The roots of formula student lie in 1970s Texas, as a variant to the already existing Mini Baja (competition for lawnmower-powered offroad vehicles). The idea resonated well and after a few establishing years, Formula

SAE was introduced as a design competition with a very open ruleset and also much more „race“ appeal since the cars were allowed to have engines with significant power compared to the spec'd single cylinders in Baja. The event quickly picked up momentum, and in 1998 it made the jump over the big pond when Formula Student UK was the first non-US competition to be held. Soon other followed and today there are eight official competitions all over the World:

- Formula SAE Michigan
- Formula SAE Lincoln
- Formula SAE Australasia
- Formula Student Austria
- Formula SAE Brazil
- Formula Student Germany
- Formula SAE Italy
- Formula Student (UK)

Additionally, there are a whole lot of unofficial events held around the globe, e.g. in India, the Netherlands, Hungary, the Czech Republic and many more.

So what is it all about? Formula Student is an Engineering Design competition that should teach engineering students some real-world skills relevant to the automotive and other industries. To successfully compete, a team has to delve into research, design, manufacturing, testing, developing, marketing, management and finances – this favors or even requires the formation of multi-disciplinary teams. This and the fact that Formula Student is as much a project management exercise as it is an engineering challenge, it teaches the competitors a valuable and industry-appreciated combination of soft- and hard skills.

FSA Winners 2023

Combustion

1. CTU CarTech
2. High Speed Karlsruhe
3. Centaurus Racing Team

Electric

1. WHZ Racing Team
2. TUfast Racing Team e-Technology
3. Dynamis PRC



The vehicle itself is governed by a set of internationally agreed upon rules. The rules have grown pretty complex over the years (the rule book is now larger than the one for F1), so here are the defining characteristics:

Vehicle

- Open-Wheel, Open-Cockpit, Formula-style body
- four wheels
- aerodynamic devices are limited in size

C-Powertrain

- 20mm Air restrictor (19mm for E85)
- turbo/supercharging is allowed

E-Powertrain

- any number of motors and driven wheels
- 80kw peak system power

As originally intended, Formula Student has become a major source of highly qualified graduates in the engineering world, focused but not limited to the automotive sector. Even in the highest classes of professional motorsports, FS team jackets and memorabilia can be seen everywhere. The unique combination of engineering and project management skills required to complete and run an FS car makes it a great preparation for real-world projects. This is recognized by many businesses, making it an ideal stepping stone from academics into an interesting rewarding job.



FORMULA STUDENT

15 YEARS FORMULA STUDENT AUSTRIA



Summer of 2009: The first edition of Formula Student Austria took place at the Wachau-ring, a small Rallycross- & Training-Track in Melk (Lower Austria) with 24 participating Teams. It was the fourth Formula Student event series in Europe next to Great Britain, Germany and Italy.

Attending Teams 2009

- Berufsakademie Ravensburg
- Fachhochschule Deggendorf
- Universität Karlsruhe
- University Of Bayreuth
- Fachhochschule Kiel
- Hochschule Konstanz
- HAW Hamburg
- Fachhochschule München
- Università Della Calabria
- ETH Zürich
- Technische Universität München
- Loughborough University
- Moscow State Technical University
- Hochschule Kempten
- Hochschule Coburg
- Hochschule Regensburg
- Technische Universität Wien
- Hochschule Karlsruhe
- Oregon State University
- École De Technologie Supérieure
- Helsinki University Of Technology
- UAS Würzburg-Schweinfurt
- Graz University Of Technology
- University Of Applied Sciences Graz



A small group of Formula Student Alumni from Austria decided to host an Austrian event, as the number of teams across Europe got bigger and bigger.



Milestones in the FSA history

In 2011, FSA was held at the new rebuilt Red Bull Ring in Spielberg for the first time with 32 attending teams.

Since 2013 FSA is part of the FSAE World series, which is connected with a seat on the international rules committee where FSA has the chance to shape the future of Formula Student as a whole.

The number of participating teams grew continuously: in 2015 the event welcomed 42 participating teams, in 2017 there were already 58 teams, meaning nearly 1600 students.

Each year, the FSA team is trying to improve many details to provide a memorable event for all participants. Every staff member, judge and team member makes his or her own contribution, as the formula student spirit connects us all.

Story to be continued...



FORMULA STUDENT

DISCIPLINES



Acceleration

The first of the so-called Dynamic Disciplines is the Acceleration. The car has to accelerate from a standstill and cover a distance of 75 meters as quickly as possible. Due to a high power to weight ratio, FSAE cars can do this in well below four seconds with terminal speeds of well over 100 kph, outrunning almost all road-going sportscars. Each team can have two drivers, each of them doing two runs.

Skid Pad

In the Skid Pad event the lateral ability of the car is tested on a figure-eight course. After entering the course, the driver has to go round the right circle (right turn) twice, then round the left circle (left turn) twice - the time for the second lap of each circle is used to determine the score. Again, each team has 4 runs split among two drivers.



Autocross

The Autocross track is a handling course consisting of turns, hairpins, straights and slaloms and is roughly 1000 meters long. Each car enters the track on its own and will do a single "hot lap" of the course. The track is marked using small traffic cones which will, when hit, result in a two-second penalty. Each team has two runs for each of their two drivers.



Endurance & Efficiency

The Endurance race takes part on a closed autocross course over a distance of 22 km. At half-time a driver change is performed and the car has to perform a hot restart. This event is driven with multiple cars on the course but overtakes are performed in special two-lane overtaking zones. The fuel/energy consumption as well as the lap times during the Endurance are used to calculate the Efficiency score.

Engineering Design

The most important one of the Statics is the Engineering Design Event. During the judging the team has to present their car to a group of automotive and racing experts. These judges will check if the design goals have been met, if the team members understand their design and if it has been executed well.



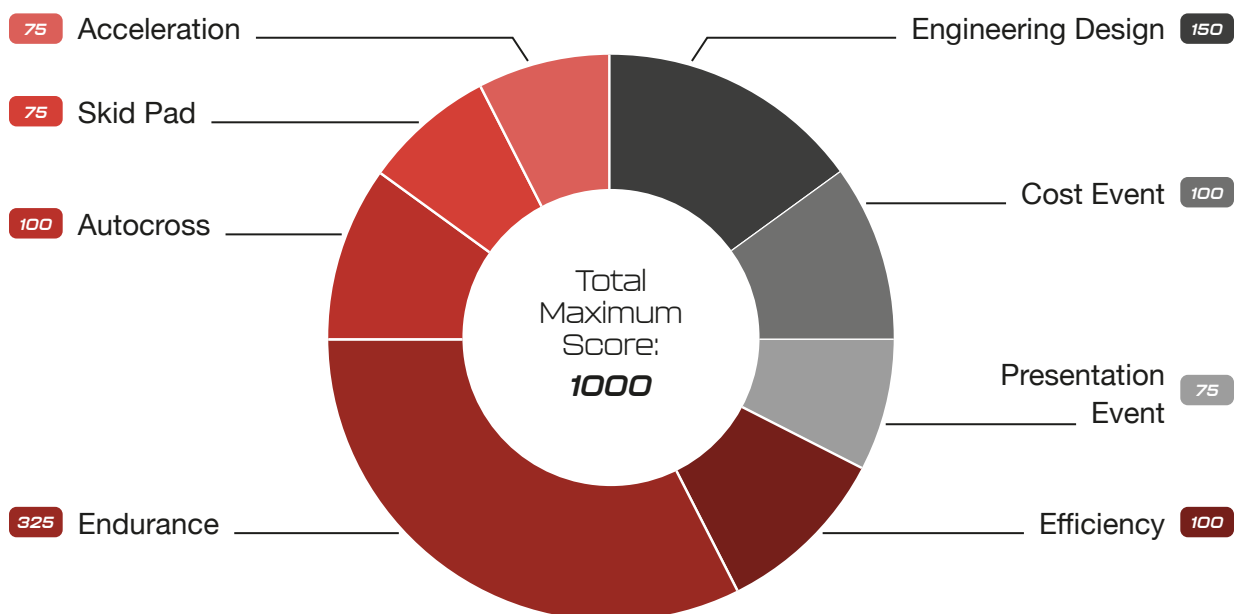
Cost Event

For the Cost Event, the teams have to submit a detailed Bill of materials up front. At the event, its correctness and completeness checked and the team is presented with an additional cost-related task.



Presentation Event

During the Presentation Event, the teams have to present a business plan for selling their design to fictional investors.



PARTICIPATING TEAMS

#	University	Team
7	Universidade NOVA de Lisboa	NFS
8	Gdansk University of Technology	PGRacing Team
9	Bialystok University of Technology	Cerber Motorsport
12	University of Cadiz	Formula Gades
19	California State Polytechnic University, Pomona	Cal Poly Pomona Formula SAE
22	Gheorghe Asachi Technical University of Iasi	T.U.Iasi Racing Team
26	Fachhochschule Dortmund	FH-Dortmund Race-Ing.
33	University Carlos III of Madrid	MAD Formula Team
37	University of Modena and Reggio Emilia	MoRe Modena Racing
50	Technische Hochschule Lübeck	Seagulls Luebeck
64	University of Malaga	Malaga Racing Team
77	University of Thessaly	Centaurus Racing Team
78	TAMK University of Applied Sciences	Tampere Formula Student
79	Széchenyi István University	Arrabona Racing Team
82	Budapest University of Technology and Economics	BME Motorsport
85	Università degli studi di Padova	RaceUP Hybrid Padova
89	VŠB - Technical University of Ostrava	Formula TU Ostrava
95	Universitat Politècnica de València	FSUPV Team
98	University of Oulu	Formula Student Oulu
E06	Technische Universität Chemnitz	T.U.C. Racing e.V.
E07	Leopold-Franzens-Universität Innsbruck	Campus Tirol Motorsport
E11	Duale Hochschule Baden-Württemberg Ravensburg	Global Formula Racing (DE)
E12	Fachhochschule für Wirtschaft und Technik	Deefholt Dynamics e.V.
E13	Technische Universität Berlin	FaSTTUBe
E16	Universität Stuttgart	Rennteam Uni Stuttgart
E23	Czech Technical University in Prague	eForce Prague Formula
E24	Tallinn TU UAS	FS Team Tallinn Electric
E26	Fachhochschule Joanneum Graz	Joanneum Racing Graz

E27	K. J. Somaiya College of Engineering	Orion Racing India
E28	Universität Kassel	Herkules Racing Team Kassel
E29	Universität Bayreuth	Elefant Racing e.V.
E31	Technical University of Munich	TUfast Racing Team e-Technology
E32	Fachhochschule München	munichMotorsport
E33	ETH Zürich	AMZ Racing Team
E34	Technische Hochschule Ingolstadt	Schanzer Racing Electric e.V.
E41	Technische Universität Wien	TU Wien Racing
E42	Leibniz Universität Hannover	HorsePower Hannover
E44	Ulm University of Applied Sciences	Einstein Motorsport
E46	Politecnico di Torino	Squadra Corse PoliTo
E48	Ruhr-Universität Bochum	RUB Motorsport
E49	Friedrich-Alexander-Universität Erlangen-Nürnberg	High-Voltage Motorsports e.V.
E52	UAS Kempten	Infinity Racing - Rennteam der Hochschule Kempten e.V
E53	Technische Universität Graz	TU Graz Racing Team
E54	Barcelona School of Industrial Engineering - ETSEIB - UPC	BCN eMotorsport
E58	Universität Paderborn	UPBracing Team E e.V.
E61	Hochschule Aalen - Technik und Wirtschaft	E-Motion Rennteam Aalen e.V.
E66	Monash University	Monash Motorsport
E69	Hochschule für Angewandte Wissenschaften Hamburg	HAWKS Racing e.V.
E71	KTH Royal Institute of Technology	KTH Formula Student
E74	Brno University of Technology	TU Brno Racing
E76	Karlsruhe Institute of Technology	KA-RaceIng Electric
E77	Indian Institute of Technology Bombay	IIT Bombay Racing Team
E88	Alma Mater Studiorum - Università di Bologna	UniBo Motorsport Electric
E90	Politecnico di Milano	Dynamis PRC
E91	Slovak University of Technology in Bratislava	STUBA Green Team
E96	Westfälische Hochschule Zwickau	WHZ Racing Team
E97	Hochschule Landshut	LA eRacing e.V.
E99	Hochschule Karlsruhe	High Speed Karlsruhe

Please note: This list is dated 01/07/2024



7

NFS

Universidade NOVA de Lisboa



Vehicle Specs (by non technical teams):

- It exists (We hope)
- It goes VRUM VRUM (Hope not kaboom)



Team Structure:

Technical:

- Motor (Vrum Vrum)
- Steering (Whip)
- aerodynamics (What wing?)
- Eletronics (Bip Bop)

Non Technical:

- Marketing (Makes memes)
- CR (Scam companies)
- Logistics (Money)



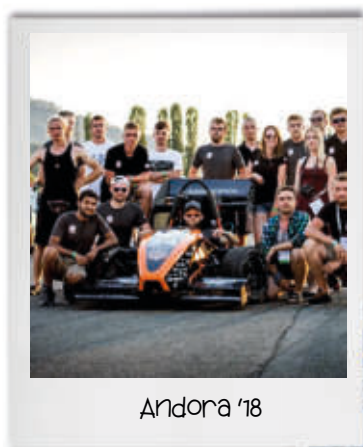


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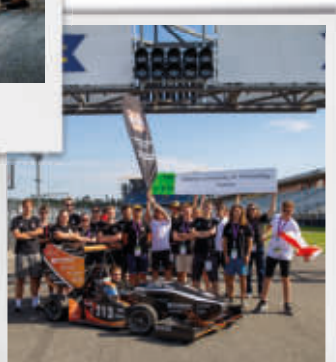
PGRacing Team

Gdansk University of Technology

We are **PGRacing Team**, a Formula Student team from Gdańsk, Poland. Our activity started in 2014. In 2024 season we are building our last internal combustion engine car and starting next season with an electric engine car. Our major achievements include winning at FS Andora in 2018 with the PGR-03 car and securing 7th place in the CV classification in Germany in 2023 with the PGR-07 car.



Andora '18



Hockenheim, Germany '23



Słomczyn, Poland '23

As for our team, we currently have over **70 members**, who gain knowledge and work towards great achievements in the motorsport field



AND REMEMBER, WE ARE SWITCHING TO ELECTRIC NEXT SEASON, SO WE WILL FINALLY BE ABLE TO HEAR EACH OTHER ON THE TRACK!



9

Cerber Motorsport*Bialystok University of Technology*

Innovations:

- !!!New!!! Hybrid powertrain
- Completely reworked suspension
- Lighter, optimized cooling system



Cerber Motorsport during its history build 8 cars since 2010. This year we are coming for FS Austria with brand new 9th car. Newly design CFRP monocoque with aerodynamic package focusing on improving airflow to the new cooling system is not the end of changes in the new CMS-09. The team spent two years working on the hybrid system and the new suspension geometry required to squeeze the hybrid drivetrain into ten-inch rims. CMS-09 was created by 29 students from Bialystok University of Technology, Poland.

TECHNICAL DATA			
Engine	10 years old HONDA	Differential	Drexler after LSD
ECU	EMU black like our car	Max.power	88 mechanical kittens
Wheels	Some OZ Racing	Dimensions	Smaller than previous years
Electronic Gadgets	Electronic gearshift	Weight	485 lb
Suspension	Hard working to keep us on track.	Frame type	CFRP monocoque/ steel frame
Fuel	Electricity/RON 98	Top speed	100 MPH
Wings	Don't work but look good	Best Feature	Hybrid powertrain (when work)



12

Formula Gades*University of Cadiz*

Who are we? Formula Gades was founded in 2017 by students of the University of Cadiz in 2017. This season, Formula Gades built his fifth car for the formula student competition. Based on our experience gained in previous seasons, around 70 students take part in this project focusing on design, manufacture and test our new combustion single seater, the G24. This season we want to create a breaking point and finally consolidate our team and we are going to put all our effort to make Formula Gades a strong one in the Formula Student family.

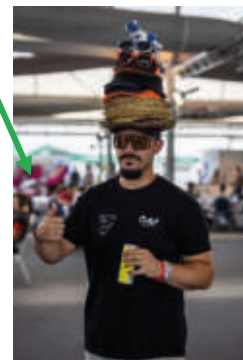
What are our plans for this season? This season, our number one goal has been to find the waterjet (thank goodness we found it!). Additionally, we've set a goal to not die from lack of sleep or carbon fiber intoxication during the construction of our race car. As for the competitions, we still have members traumatized by the tilt test and the pedal box flex test, so let's hope those situations don't happen again. We do not tolerate any disrespect towards our pedal box!

This summer, we will be competing against other teams at events in Austria and Spain. We eagerly anticipate creating unforgettable memories, making new friends, experiencing thrilling events, and fostering great cooperation with all the Formula Student teams!

Engine	Same as 20 years old motorbike	Electronics	No money for more 100A fuses
Aero	No money for DRS :(, we don't actually know how much does it cost.	Driver	
Chassis	P1 SES		
Suspension	Scared		



This man loves rallies too much





19

Cal Poly Pomona Formula SAE

California State Polytechnic University, Pomona



Introducing **Bronco Motorsports** from Cal Poly Pomona, USA! Established in 1986, our team has a rich history of engineering excellence and competitive racing. Hailing from the sunny climate of California, we thrive in warm weather but our true passion lies in the thrill of engineering and the excitement of racing. With dedication and innovation, we push the boundaries of automotive design and performance. We are thrilled to participate in European platform competitions and look forward to showcasing our skills, learning from our peers, and sharing our love for motorsports on an international stage.



CAL POLY POMONA, USA
CHECK US OUT!



CPP FSAE



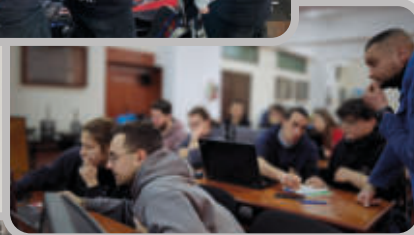


22

T.U.Iasi Racing Team*Gheorghe Asachi Technical University of Iași*

come and Meet our TEAM

Our team was established in 2011, and in 2012 we participated in our first official competition. From that point onward, we have managed to qualify for and participate in numerous competitions, achieving remarkable results. Alongside our accomplishments, we have built a strong, united, and hardworking team over the years, culminating in our participation in the FSG 2023 competition and furthermore with the FSA 2024.

**tuiasiracing****tuiasiracing****T.U.Iasi Racing**

With the same dedicated spirit, we are thrilled to say that this year's race car will be innovative, symbolizing all the hard work our team has put into this Formula Student season. It is a monopost we are extremely proud of, representing each one of our team members. We invite you to keep up with us and support our journey!



26

FH-Dortmund Race-Ing.

Fachhochschule Dortmund

RHINO III

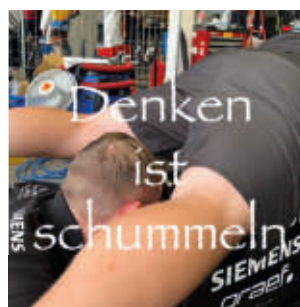
RACE-ING.
TEAM FH DORTMUND



Specs
Engine:
Guess! :)
Suspension:
Too low
Aero:
Overrated
Electronics:
Maybe a working
BSPD
Mono:
Yes



WARNING!!!
DANGER TO MANIFOLD



BRENNWAGEN



RACE-ING.
TEAM FH DORTMUND



33

MAD Formula Team

University Carlos III of Madrid

Welcome to another year of MAD Formula Team, where the size of our dreams is proportional to the size of our wings (smaller than last year but bigger than the average). We believe that with enough duct tape and optimism, anything is possible.

Not ones to be deterred by the laws of physics, last year's wheel hub 'incident' gave us a new angle on car design—literally. With the power of the almighty laws of thermodynamics, we also relocated our radiator to the side. The result? A car that not only runs cooler but also doubles as a handy barbecue grill for post-race camping parties.

Join us another time for more tales of creativity and chaos from the team that puts the 'MAD' in their name for a reason. We might not always make it to the finish line, but at least we'll always make an entrance.

TECHNICAL DATA			
Dimensions	xyz, in millimeters	Steering	Wheel
Engine	One in the car, one in the van (just in case)	Brakes	Only because rulebook says so
Cooling	Side issue	Wheels	Hopefully attached at all times
Wings	Size issue	Battery	Drained
Drivers	Trained and competent	Weight	$m \cdot g$
Fuel	Dino juice, on the rocks	Endurance	Finished please





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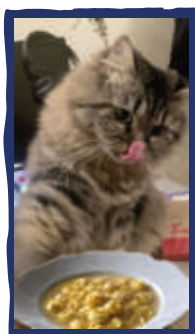
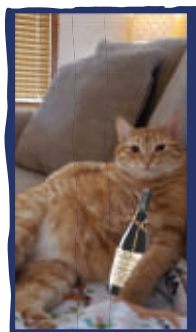
MoRe Modena Racing

University of Modena and Reggio Emilia

MMR A.K.A. Meow Meow Racing
(Or More Mechanical Rubbish)

Hello everyone!

This year the MMR team has decided to make a fundamental change, going from a full combustion powertrain to an hybrid one by adding two electric motors (call them **Problems**) on the front axle: only time will say if it was a good idea or not. We can't wait to enjoy our stay in Spielberg by loosing hours of sleep (from technical issues or loud music in the morning: **you choose**) and not eating enough (thanks to the **lovely** Team Leader).

See you there! XOXO, **Gossip Meow**Our source
of energyLET'S LOOK AT SOME INFO ABOUT US
(Take inspiration at your own risk)

Engine	>>>>	360 Cat Pawer (1CP = 3.71 HP)
Wheels	>>>>	Usicr
ECU	>>>>	MiaOTeC (italian of the MeOwTeC one)
Suspensions	>>>>	Very stiff because race car
Fuel	>>>>	Montepulciano d'Abruzzo
Wings	>>>>	Hopefully not touching the ground
Dimensions	>>>>	Holds 37 cats comfortably
Max Pawer	>>>>	Never enough
Weight	>>>>	It's in the bulk phase
Drivers	>>>>	They serve a lot of tortellini (in Brodo)
Top Speed	>>>>	Bilnk and you'll miss it
Best Feature	>>>>	A beautiful core





50

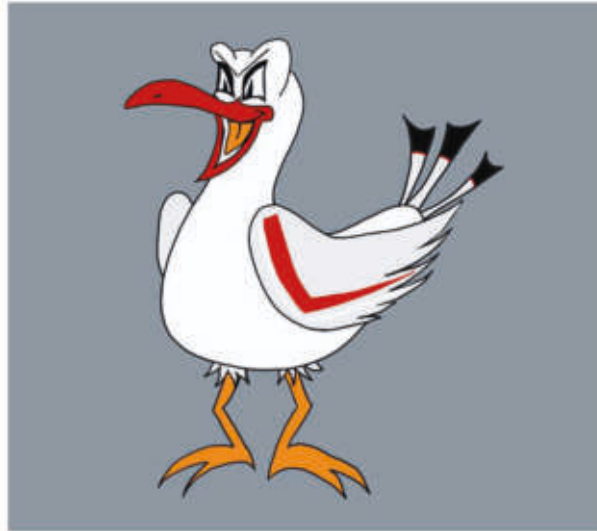
Seagulls Luebeck

Technische Hochschule Luebeck

Formula Student Team

Unsere **Garage**

2023/2024

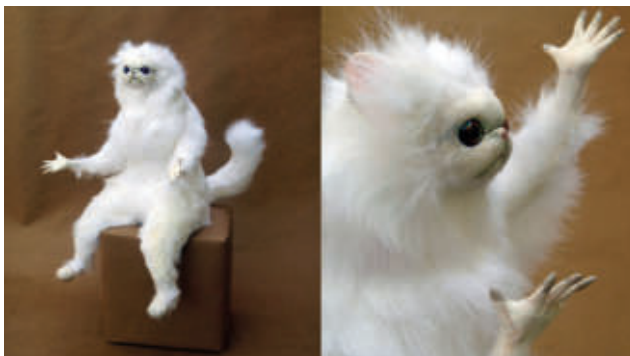


SG-05

Source: seagulls-luebeck.de

This team didn't bother to submit a team-page, so the FSA media eats team created one for them.

You're welcome!



Visiting the team's homepage to find out more about the current car –finds a laughing seagull.

Let's find out at FSA!





64

Malaga Racing Team
University of Malaga

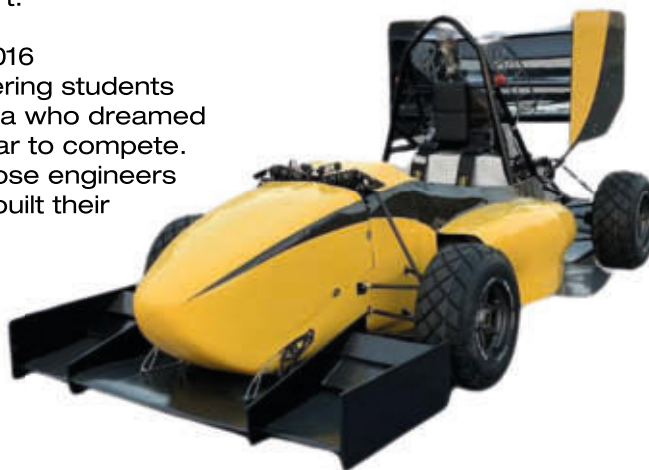
MART

MÁLAGA RACING TEAM

MART is the racing team of the University of Málaga, consisting of over 80 students passionate about motorsport.

The team was founded in 2016 by a small group of engineering students from the University of Málaga who dreamed of building a single-seater car to compete. After dreaming so much, those engineers achieved their dream: they built their single-seater car.

Now, MART faces new challenges, aiming to build their electric car. FSA will be a tribute to their combustion single-seater, the last competition where the team will see it race.



That's why everyone at MART is more excited than ever to experience this competition alongside other teams (or as we say in Spain, "**estamos más Feli' que una perdiz**").





77

Centaurus Racing Team
University of Thessaly

Dear random reader ...,
You should carefully think about proceeding to
this text because you might end up like Bart.



If you are brave enough to continue reading, here is the ultimate
presentation of the team.



After getting the 3rd place overall last year, our team came back
to take what is deserved (last... 1st place overall). Our team
consists of 54 alcoholic members (wannabe engineers) who
claim that they have built the perfect (tractor) Racecar. Here in
Volos, Greece we are building a rocketship which will cruise to
victory, so the competitors do not stand a chance against us.

We wish luck to us and to people that may be nearby, because this rocket
might blow up anytime soon, if you consider that we build it ourselves.
Each subteam claims to have made serious progress.
Engine: +10% Power (Caught fire at first testing)
Chassis : -8% weight (we don't really know)
Aero: +20% C_dA (...they say)
Suspension: S(h)ame
LV: The reason we have no EV



Technical Data:			
Engine	Honda Mama Motor	Weight	Obese
ECU	Sth with little wires	Max Power	We are power-limited all the time
Wheels	4	Dimensions	Small enough so it can fit the entrance of our lab
Fuel	Tsipouro	Frame Type	The expensive one with some tubes
Wings	-Lifting us to the TOP	Differential	Set-up for drifting
SUSpension	Assuring we have 0 grip	Electronic Gadgets	Beep-Bop 1010100001
Driver	Firefighter at times	Best Feature	Fire-Proof, Water-Proof



78

Tampere Formula Student

TAMK University of Applied Sciences



We are Tampere Formula Student, a team from the cold and dark country of Finland. They say that Finland is the happiest country in the world, and we are a living proof of that. We are also known for our sauna that keeps up everyone's spirits up during the competitions. Although sauna sometimes makes you a bit dehydrated. Luckily our teammates are heavy drinkers (of water, ofc)!

More or Less Technical Data			
Engine	Still under pressure	Differential	Volvo 1031
Tires	Tired	Monocoque top speed	155 km/h riding the short bus
Gadgets	20 kW arc light generator	Technical director	Fled to Graz
Suspension	Newton resistant	F*cked around	Not enough
Fuel	Unobtanium	Budget	Crisis
Aero	Passive aggressive	Team fleet	Short bus (windows may appear wet)



TFS cats doing a hybrid system check

TFS cats riding the short bus





79

Arrabona Racing Team
Széchenyi István University**Arrabona Racing Team:**

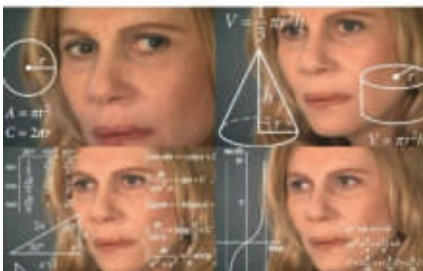
Where "combustion engine" is just a fancy way of saying "we make race cars and go boom!" With our 50 passionate members, it's like a

high-octane premium fuel. It's probably fueled by Hungarian goulash and the collective willpower of every member, not to be late for the race.

Our latest creation is like the Frankenstein of cars: a new monocoque, aerodynamics that could make a jet jealous, and a powertrain so powerful it could probably outrun a Hungarian bull. And let's not forget the new suspension system, perfect for those inevitable potholes on the road to victory. And of course we have unique engine from SZEngine.



How I count the time to see how much sleep I can get before school.



Technical Data			
Engine	Purring of a few cats 🐾	Differential	For what is? 🤔
ECU	Voice activated, needs to shout during a race 🗣️	Power	An unimaginable amount 💪
Wheels	We have four, why? 🤔	Dimensions	The size of a well-fed cat. 🐾
Electronic gadgets	Cat meowing horn, haha just kidding 🤡	Weight	About 425 kittens 🐾
Suspension	Which one? 🤔	Frame type	Please don't ask that 🤔
Fuel	Does used oil count? 🤔	Driver	Stifler's mom 🤡
Wings	Red Bull gives us 🤡	Best feature	Should it be? 🤔

After participating in FSA last year, we're back for this year! We're addicted to the smell of burning rubber and the sound of engines revving. Watch out, FS community, because the Arrabona Racing Team revs up to



82

BME Motorsport

Budapest University of Technology and Economics



BME Motorsport is located at Budapest University of Technology and Economics. We were founded 5 years ago with the goal to be the CV team of the Budapest TU. As we always say; It is all about the noise!

Throughout these 5 years we became one of the most dynamically

developing teams of Europe. We have achieved many podiums and had an especially successful 2022 season. Therefore, our goal for 2024 is to continue where we left of there, with a new generation team who have come together in 2023. We have developed the first hybrid Formula Student race car in Hungary, so we aim to achieve success with a new type of drivetrain, but with the same mentality, with a lot of noise and with even more passion!

It is our first time here at FSA, and the first one always hits different.

We have been planning to compete here for a long time, as we have been getting good feedback from our competitors for years now, and finally we are here! We are ready to shine here, at the picturesque Syrian. LET'S GO MOTORSPORT!





85

RaceUP Hybrid Padova

Università degli studi di Padova

raceup hybrid

45

Members

1

Goal



Uni Padova will compete with the 19th
prototype of the MG series and the first
one of the hybrid generation

MG19.24H



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

raceup





89

Formula TU Ostrava

V_B - Technical University of Ostrava



The Formula TU Ostrava is a team of students from the faculties of VSB-TUO in the Czech city Ostrava. Local students have started the Formula Student project for the first time in 2014 and we've come a long way over the years. In this season, we are building the 9th model of a racing monopost with an internal combustion and hybrid drivetrain.

Our team currently has about 20 active members, from which more than a half are this season's newbies. But even with a small numbers, we try to push the team forward and together we are able to overcome all the obstacles along the road.

Last season we took part in the FSG race for the first time, and we are excited to showcase our skills at the FS Austria competition this year.



In the picture, you can see VECTOR 07 – the car that secured us 3rd overall place at the FSN competition in 2022. With our new car called VECTOR 09, we are ready to push our limits to the max and show everyone what we are made of!



95

FSUPV Team

Universitat Politècnica de València



**1st Spanish Team
wohooo**



The team is very poetic.



This team didn't
bother to submit a team-
page, so the FSA media eats
team created one for them.

You're welcome!



98

Formula Student Oulu

University of Oulu



(Allegedly) the fastest Finnish Formula Student team with the most magical fingers is once again coming to Red Bull Ring this year! And yes, we're bringing our Sauna with us as always! Since the foundation of the team, we have continued to gather the brightest engineering students from cold northern forests into our team.

Our spectacular M05 has undergone magnificent changes for you to see. This year our goal has been to create the most reliable and sisukkain car on the grid. The members have been building the car so hard, they've had to learn how to relax even harder than before. Our car's aerodynamics is so great, you could even say it works on black magic (nothing to do with our magical fingers).

Technical data

Engine	OM606 Super Turbo
Weight	8765,43 gröna kulor
Power	Turtle and rabbit speed
Tires	Yes, if budget
Fuel	Optional
Suspension	Overnight pretzel
Frame	Bouncy





#EO6

T.U.C. Racing e.V.

Technische Universität Chemnitz



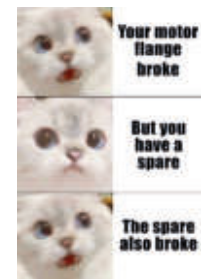
Over 50 motorsport enthusiasts, one goal: to fly over the track. We, the T.U.C. Racing Team from the University of Technology Chemnitz, proudly present our 5th car: Mxx V. In addition to our own DC/DC voltage converter, we are also presenting our first self-developed Inverter for our anniversary. The focus of our design goals: Reduction of unnecessary complexity for more efficient production, easier maintainability and higher reliability under upcoming loads at events and during testing. See you on the racetrack!

TECHNICAL DATA

Engine	powered by love and trust
Wheels	Contiball-Prop
Electronic Gadgets	to blind bright LEDS
Suspension	expensive
Fuel	Tears of CBOM Responsible
Wings	Please send donations to @tucracing
Driver	full-time Cone-Collector
Max. Power	strong like a TIESCHER
Dimension	banana for scale
Weight	as light as it gets
Frame Type	Tubes from all over Germany (thanks to E-Traxx & Deefholt Dynamics <3)
Best Feature	spinning wheels (hopefully)



PS: We think that we're the best at Beer-Pong.
Wanna prove us wrong? Come to our Campsite!
(and bring Stickers with you)





#E07

Campus Tirol Motorsport

Leopold-Franzens-Universität Innsbruck



"I'm building a race car in my free time"



Guess who's back, back again? Welcome to CTM, where we build a race car and NOT lose our mind. This year we are in our AERIS era. Since last year we are terrified of water, so we banned all of it from our car and the chassis department decided that they hate our drivers and made the chassis as tight as possible (not sure how we feel about it). And other than that we pretty much stuck with the trusted classics, drinking unholy amounts of beer and since 2 weeks now we are also offering Cola Mix for the weak links. You will surely notice our car quite a lot this season as we are going to FOUR events this year, so make sure to give us a supportive tap on a shoulder or some hard liquor in Italy in September.



Disclaimer: Not all team members were harmed in the making of this car. Sanity, however, is a different matter.

Thank you for your attention, you can turn the booklet back up

Powertrain	Getting hot
Tires	Hopefully more than 3 and mostly round
Aero	Air goes woosh
Suspension	We like it hard
Chassis	Too small for our Drivers
Fuel	Pasta with pesto + beer
Accumulator	Waterproof (hopefully)
Wiring	Thunderstruck?
Driver	Shouldn't be wider than 31 cm
Efficiency	420%
Mass	1,5 Arnold steroids Schwarzenegger with
Dimension	4,1 x 2,3 slot length
Electronics	Based on Lego
Squaremeters	Less than last year

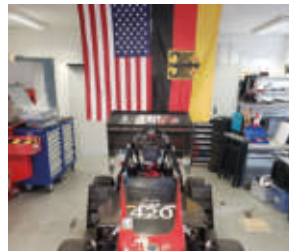


E11

Global Formula Racing

Duale Hochschule Baden-Württemberg Ravensburg

#WeAreGFR



ABOUT Global Formula Racing

'Global Formula Racing is an international cooperation between students from Duale Hochschule Baden-Württemberg-Ravensburg (DHBW), Germany, and the from Oregon State University (OSU), USA. GFR began our unique global venture in 2009. We share physical and intellectual resources by using advanced communication technology to create two highly competitive vehicles.'

Design, manufacturing, and testing occur simultaneously at both schools, over nine time zones and 8770 kilometers apart. Our supply chain management is unique in Formula Student, and it adds an extra dimension to the team. The English language, the team language, is key for cross-border communication.'

global-formula-racing.com

#BecauseRacecar

This team didn't bother to submit a team-page, so the FSA media eats team created one for them.

You're welcome!



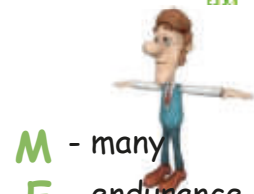
#E12

Deeftholt Dynamics e.V.

Fachhochschule für Wirtschaft und Technik



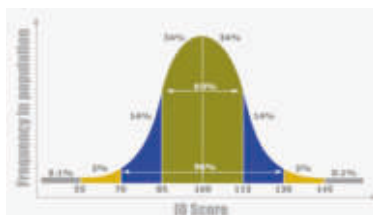
Yes, we're running on



M - many
E - endurance
runs will be
finished by
this vehicle

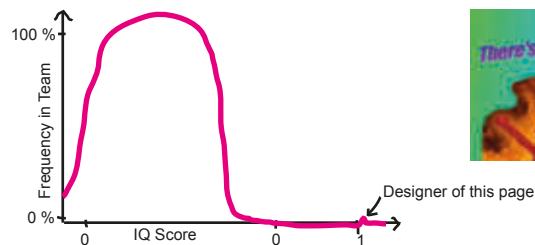
WE BURNT OUR LAST TWO ACCUMULATORS
MAYBE WE CAN FINALLY DO POST-SEASON TESTING THIS YEAR

normal IQ distribution:



ENDAM
#SEXY

IQ distribution in our team:



Porscher 9/11 GT3 RS vs. Deeftholt racer machine:

	Porscher	Deeft
0-100 km/h	3.2 s	yes
Top speed	326 km/h	at least 24
Displacement	4 l	no
Weight	1450 kg	3 camels (5 with driver (he is very heavy))
Price	370000 €	our sanity

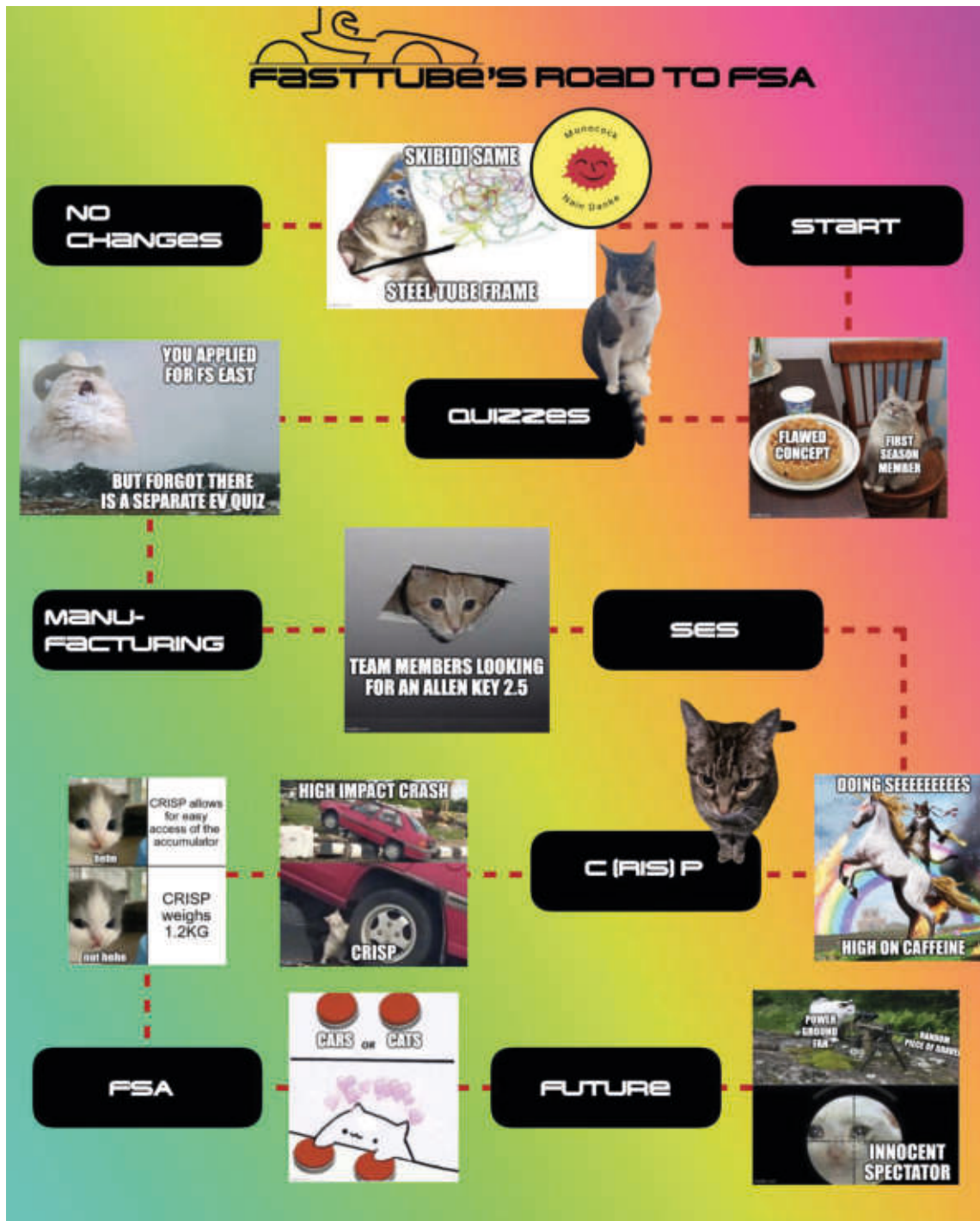




E13

FaSTTUBe

Technische Universität Berlin





E16

Rennteam Uni Stuttgart
Universität Stuttgart

Welcome to the Rennteam, where we put the “fun” in “fundamental engineering flaws.”

This year, our goal was to once again build one of the fastest cars on the track. To achieve this, we want to share with you our story of building and developing our car.

Of course, it all starts with the design and development phase. Here, the magic happens with hopefully as little pfusch as possible (this year's SDS-CAD is probably the cleanest CAD we've had in 10 years, let's not talk about the Powertrain...). In the world of CAD, there are two types of people: those who make it look like wizardry and those who make it look like abstract art. Watching the second group navigate the software is like watching a toddler play with a new toy: endearing, unpredictable, and occasionally, they manage to create something truly groundbreaking, like this year's “Phasenkabel Box”—usually by accident. So after we almost met every deadline, the car is more or less ready in CAD by the end of December.

After the design phase, the fun part begins: building the car. To build a fast car, we at Rennteam believe in a tidy kitchen and assembly. By always keeping our workshop super clean (shout out to Robert), every part we manufacture fits together perfectly on the first try, thanks to our advanced skills in eyeballing and CNC machining. There's definitely no last-minute grinding, sanding, or “gentle persuasion” with a hammer involved. Building our car feels like assembling a LEGO set—okay, so maybe there's some occasional “strategic adjustment,” but that's all. During this phase, we believe in the power of positive thinking, the power of friendship, and the power of duct tape—because sometimes, you just need a little extra hold.

When May rolls around and our car is finally driving, the even more fun part begins: testing season. This is the time of year when you understand why building a light car is important: because you have to lift it about a thousand times to load it onto the trailer. But once the car is on the track, we are set. Our first few laps are usually a delightful mix of “Will it start?” and “What's that noise?” But after some fine-tuning (and maybe a bit more duct tape), we are ready for the events.

During all this time, you realize it's not just about the trophies and lap times but also about the things you learn and the people you meet. Whether it's during a “zornige” late-night mono manufacturing session or some PCB debugging, there is only one thing left to say: Rennteam? SEHR gerne!

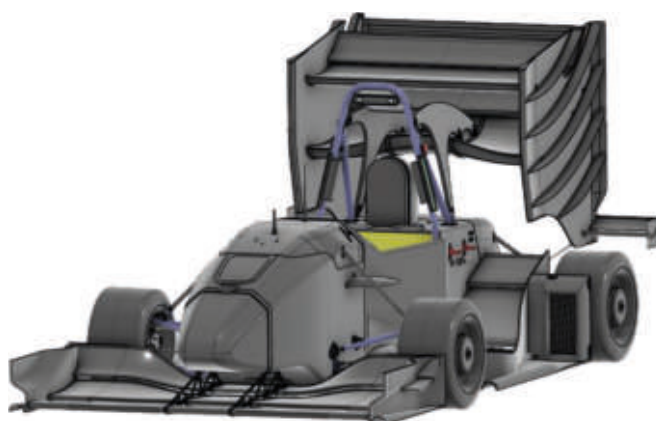


E23

eForce Prague Formula

Czech Technical University in Prague

A new team, new opportunities, a new monocoque, a new meme. Two teams join forces to create an unbeatable electric formula with autonomous features. Together we are taking on this challenge and we believe that we will turn the experience gained by both the CTU CarTech and eForce FEE Prague Formula teams into one of the fastest student formulas and storm the podium.



Technical Data			
Engine	Gallo 24	Fuel	Solar energy
Wheels	From hard to soft in one lap	Wings	Well done
Electronic Gadgets	24' screen on the rear wing	Max. power	24 fluffy kittens
Suspension	Decoupled roll and heave	Dimensions	Fit in Skoda Octavia
Weight	Can be carried at 4	Best feature	HAFO package
Acceleration			
On track: 3.87s on a charge: 3.83s			



#E24

FS Team Tallinn Electric
Tallinn TU UAS



Testing

Before the competitions, our newly made vehicle needs testing and improvements.



May July

July August

The Competition

It's finally time to see the car race and travel!



✓ Formula Student Austria: 22.07.23 - 27.07.23, Spielberg

This team didn't
bother to submit a team-
page, so the FSA media eats
team created one for them.

You're welcome!



E26

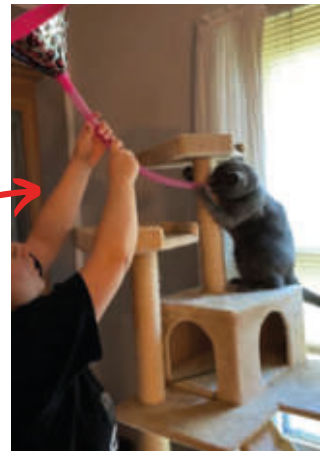
Joanneum Racing Graz

Fachhochschule Joanneum Graz

Last year the sparks were not only flying between some of our Weasels: The second electric season at the Red Bull Ring was world breaking for every single Weasel – with our second world record with the JR23. This year we are returning with the JR24 and are planning on performing just as good as last year – but we removed all cat trolls in our software so the car can go uiiiiii again.

Despite the cat trolls, we changed some other things in our car. Again, we developed a new battery completely independently, as we did with the wheel package in the JR24. Because we are planning to drink enough alcohol at the award ceremony, we decided to abandon the water and cool our car only with air.

On track, the JR24 will shine as bright as in the night.



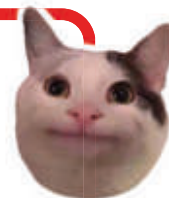
Cheers, the Weasels

"Mom, I am ready for FSA"



Vehicle Data

Accumulator	Paw-sitively charged
Best Feature	You would like to know, wouldn't you?
Cooling	Fluid (definitively not water lol)
Frame	Monocoque (duocoque was too expensive)
Meow-tors	FIShers, up tp 4 working at the same time
Suspension	Purr-fectly balanced, as all things should be
Weight	Optimized, bit heavier as in Italy



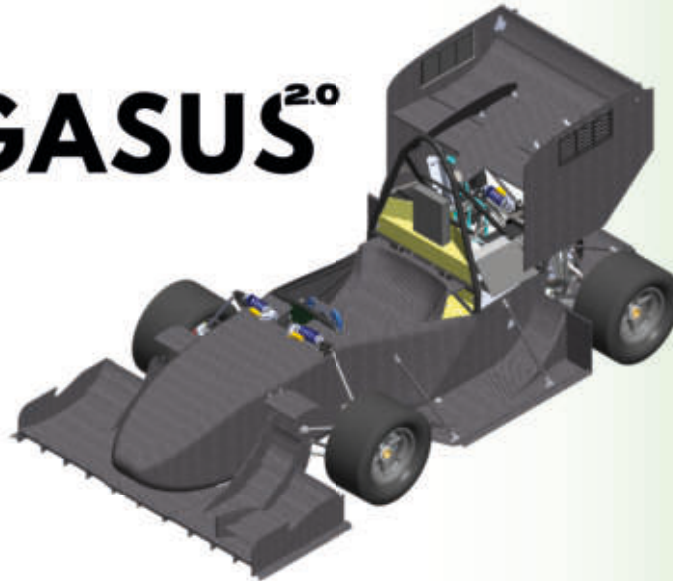


E27

Orion Racing India

K. J. Somaiya College of Engineering

PEGASUS^{2.0}



Vehicle Weight



Peak Power



Peak Torque

Lift Coefficient



Top Speed





E28

Herkules Racing Team Kassel
Universität Kassel

After countless of night shifts, we are happy to bring our Ikarus to Red Bull Ring for the first time!

Weight: 20 Ron the Racoon

Drive:

Engine:	AMK Dynasin DD5-14-10-POW-18600-B5
Gear Ratio:	1:13.7 Planetary gear integrated in wheel hub
Battery Capacity:	7.2kWh
System Voltage:	600V
Battery Technology:	Li(NiCoMn)O ₂ - Graphite

Chassis:

Wheelbase:	1540mm
Track Width:	1200mm front & rear Adaptive
Spring-Damper System:	2-damper system
Rims:	OZ Racing Magnesium rim Continental
Tyres:	C18 470/225 R13
Chassis Construction:	CF monocoque, aluminium honeycomb
Seat:	Indi Seat SCHROTH





E29

Elefant Racing e.V.
Universität Bayreuth

ELEFANT RACING bayreuth



Mass:	about 44 average sized cats (199kg)
Power:	a lot of meow-power
Top Speed:	Not tested yet, lasers for measuring are evil
Tires:	Purr-relli
Engine:	4 Catnip-Injected Purr- formance Engines (Self- developed)
Infotainment System:	Cat-Sync and Radio Com-Miau- cation

Happy racing, and may all
your laps be purr-fect!



E31

TUfast Racing Team e-Technology

Technical University of Munich



In 2002, TUfast was founded by 5 students at the Technical University of Munich who wanted practical experience in their mostly theoretical studies. They wanted a place where they could learn about working under the pressure of time and money with full responsibility in a close team.

Years later, the students of TUM still work on making their own race car from the ground up, tackling every challenge that comes their way – like in the real working world. Their goal however is and was always the same: to build a new, superior TUfast race car every single year.

Our latest challenger, the xb024 is ready to fight for victory at FSA 2024. As always, TUfast aims to win via its signature light weight philosophy with CFD-optimized aerodynamic package and carbon fibre monocoque. The fully electric drive consists of 4 E-machines, each capable of 35kW of power, a three-phase SiC-inverter and a 600V, 7.03 kWh accumulator, the latter two being designed, developed, and built in-house.

We are looking forward to competing at Red Bull Ring once again! Bring it on, FSA!



Interesting facts about the car			
Cooling	Strafbiere	Brakes	Why?
Downforce	Yes	Front Wing	Cone-resistant
Power	18800 catpower YEET	Weight	Slightly more than our driver
'Coque	Stiff	Suspension	Intact for now
Inverter	Slightly toasty	Sustainability	We try our best, ok?



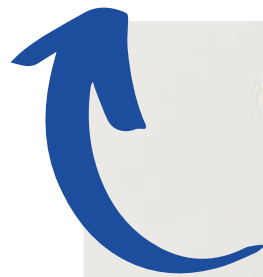


#E32

munichMotorsport

Fachhochschule München

www.munichmotorsport.de/magazine



The new
munichmotorsport
magazine: Now
available in limited
edition at newsagents
and online!

Exclusive:
Car facts,
live hacks &
interviews

Read your copy here!!



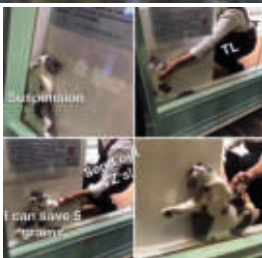


E33
AMZ Racing Team
ETH Zürich



The AMZ Racing team was founded in 2006 by students of ETH Zürich, and has been developing electric Formula Student racing cars since 2010.

For this season, the AMZ Racing team built their seventeenth car, *dufour*. *dufour* is powered by completely self-developed motors. Being the third AMZ car with the autonomous system integrated from the beginning, it is a step forward in terms of packaging, performance, reliability, and maintainability, featuring a full aerodynamic kit, CFRP sandwich structure monocoque, and our mode decoupled hybrid suspension system.



Technical data			
Motor	Maybe	Weight	4500± 1000 hot dogs
ECU	Telepathy ray	Max power	2 strong guys pushing
Electronics	Self developed christmas lights	Wheels	Lightweight cast iron
Aerodynamics	Sick look approved	Frame type	PBJ sandwich



#E34

Schanzer Racing Electric e.V.

Technische Hochschule Ingolstadt

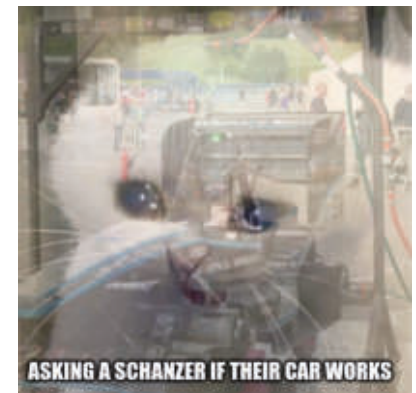
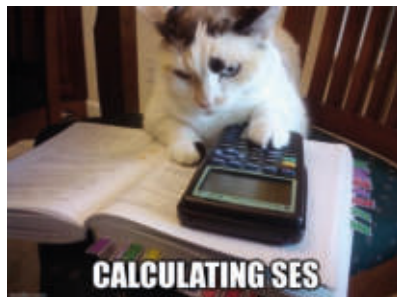
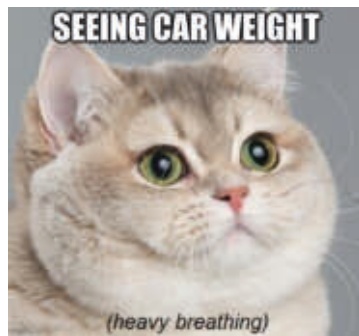


Servus Habedere!

As per tradition by now: Here →
our current car (**SRE24**)!



Go follow us on Instagram: @schanzerracing



Cars... cats:

← Here are our best drivers: Kleo (left) whom we adopted from the *Camping am Spielberg Academy* as a junior driver last year. A lightweight baby for Accel and Skidpad. On the right, Monte embodying a fierce black panther off and on track. Muscle and power for AutoX and Endurance.



#E41

TU Wien Racing

Technische Universität Wien

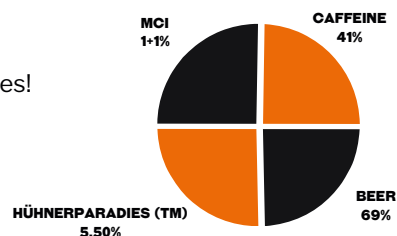


🐔 HIGH RISK - NO REWARD 🐔

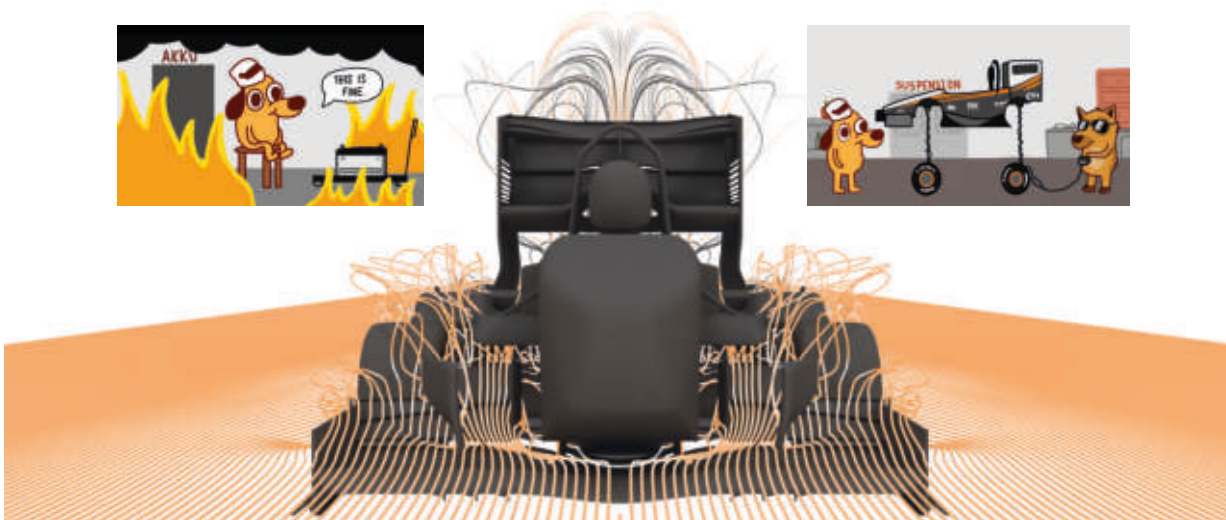
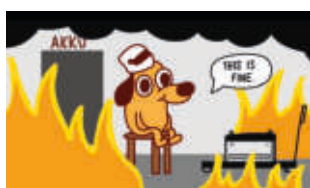
RETURN OF THE DODO

Welcome, speed enthusiasts, and anyone who's ever dreamt of seeing a car built by caffeine-fueled geniuses! Picture this: a group of students with more equations in their heads than horsepower in their cars, coming together to defy the laws of physics. Yes, we're talking about those mad scientists of the asphalt, the engineering wizards of TU Wien Racing! These folks don't just build cars; they conjure them from the depths of their collective brilliance, fine-tuning every nut, bolt, and line of code to perfection. And while they might occasionally forget to eat or sleep during crunch time, you can bet your last Austrian schnitzel that their passion for speed burns brighter than a thousand suns. So buckle up, buttercups, get ready to laugh, gasp, and maybe even learn a thing or two about how to turn caffeine into horsepower - because when it comes to racing, these students are in a class of their own.

Count your days traffic cones...we're coming for you!



Avr. Composition of a TUWR Member

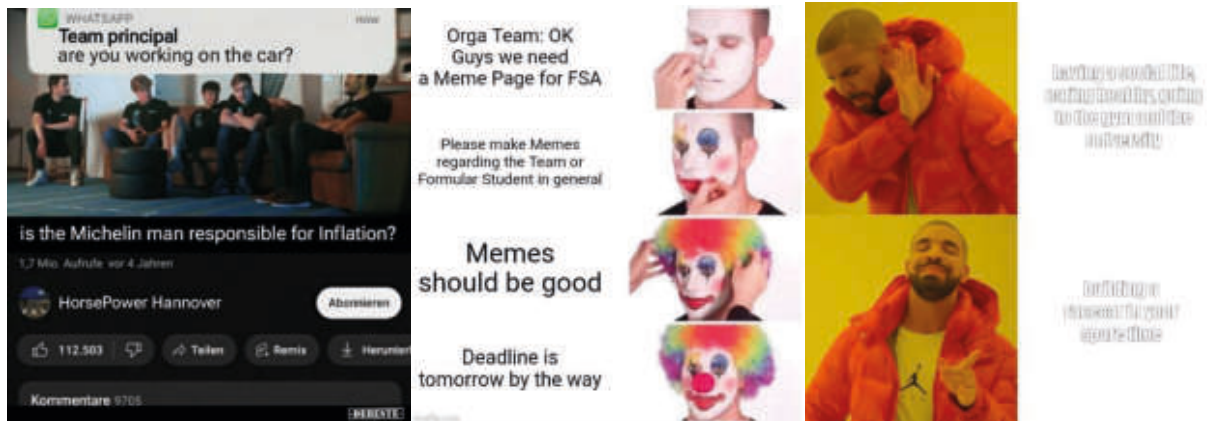




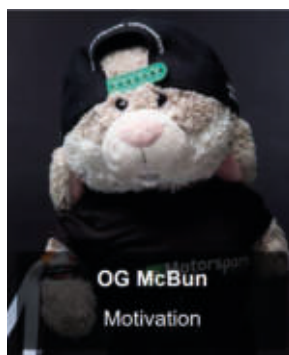
#E42

HorsePower Hannover

Leibniz Universität Hannover



Our team moral is fueled by two simple things. Master-Blaster and Hoosier Ball. Our team noticed that there were loopholes in the “normal” rules of flunky ball. To allow an fairer play, we created additional rules to fill these. Since the creation of the rules a lot of teams agreed with the flaws and adopted our rulework. Regarding Master-Blaster: Feel free to visit our camp in the evening!



As our mascot we will bring OG McBun with us. We would be pleased to not see him eaten by a cat <3

Technical data:

Horsepower	1
Engine	yes
Aerodynamic concept	Looking cool af
Chassis	Carbaaaan Faibaaaa



#E44

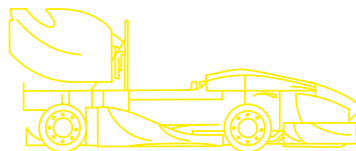
Einstein Motorsport

Ulm University of Applied Sciences

Einstein Motorsport was founded in 2006 at the Ulm University of Applied Sciences and built combustion racing cars until 2019.

In 2022, we presented our first electric autonomous racing car.

This season's racing car, the AL24, was assembled by 60 students from Ulm University of Applied Sciences, Neu-Ulm University of Applied Sciences and Ulm University.



The AL24 is equipped with a lightweight carbon monocoque and a comprehensive aerodynamics package. We also use two electric wheel hub motors on the rear axle to drive the car.





#E46

Squadra Corse PoliTo

Politecnico di Torino

20 YEARS OF SQUADRACORSE



2004

Team's foundation. **Squadra Corse** is the pioneering motorsport team of Politecnico di Torino.

2005

The Team makes its debut in **Formula SAE** competitions.



2019

Squadra Corse gets its **first victory** in the electric category of Formula ATA and the Abarth Prize for the **most efficient electric car**.



This year the Team celebrates its **20th anniversary**.

2024

The prototype is the SC24, but we like to call her **Andromeda**.

This season's races:

 **FSA**  **FSG**  **FSATA**



We are 70 students split into 10 Divisions, each led by a **Division Leader**. The whole Team is coordinated by the Board: Team Leader, Technical and Production Director.

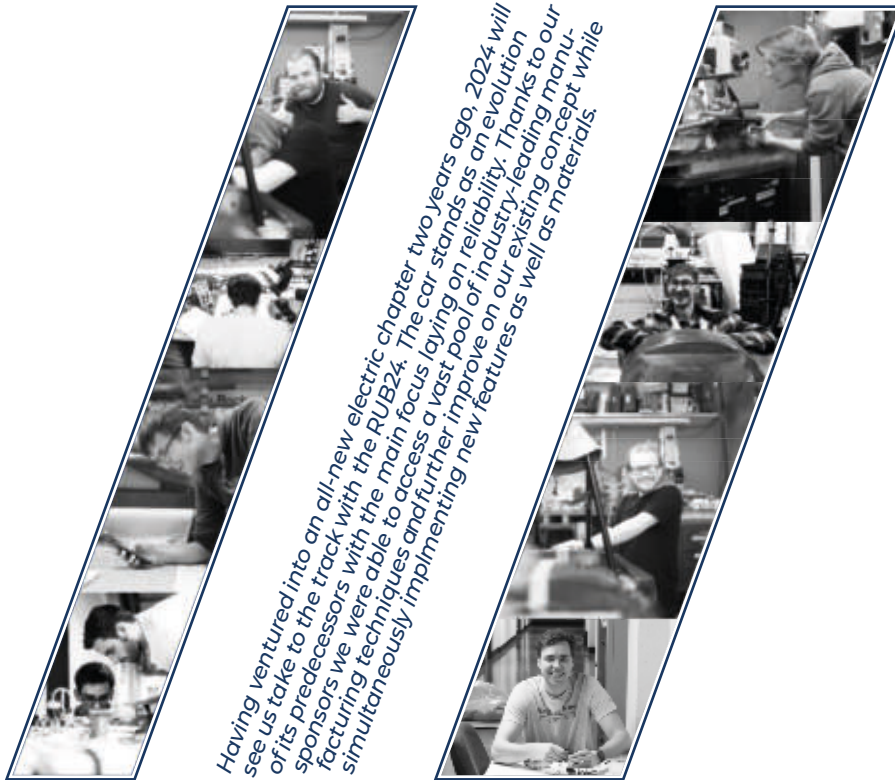




E48

RUB Motorsport

Ruhr-Universität Bochum



Having ventured into an all-new electric chapter two years ago, 2024 will see us take to the track with the RUB24. The car stands as an evolution of its predecessors with the main focus laying on reliability. Thanks to our sponsors we were able to access a vast pool of industry-leading manufacturing techniques and further improve on our existing concept while simultaneously implementing new features as well as materials.





E49

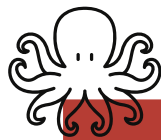
High-Voltage Motorsports e.V.

Friedrich-Alexander-Universität Erlangen-Nürnberg



Native Animals in Erlangen

We are High-Voltage Motorsports e.V., the Formula Student Team from the University of Erlangen. 2007 founded under the Name High-Octane Motorsports e.V., we started to build our first racecar and with the complete change to electric cars in 2022 we renamed the club this season.



Octopus

Our car regularly has a seat for one octopus



Cat

Our car weighs as much as 33 cats, each weighing 5 kg, which is the weight of an average cat. It is as fast as the fastest cat in the world



Orca

The front wings of our race car are so finely tuned, they cut through the air with the precision of an orca slicing through the ocean!



Wild animals at the university?



Orca-Naturschutzgesetz

Art. 1 Pflichten

(1) Jedes aktive Orca-Mitgliedschaftsmitglied ist dazu verpflichtet zu jedem Orca-Mitgliedschaftsreffen nicht weniger als ein Marine zu entsenden.

(2) Das Marine muss fristgerecht zum offiziellen Beginn des Orca-Mitgliedschaftsreffens in der zuvor dazu veröffentlichten Präsentation eingetroffen werden. Der offizielle Beginn des Orca-Mitgliedschaftsreffens ist durch den Google-Kalender festgelegt und ist erfolgt am Tag des Orca-Mitgliedschaftsreffens eine Einweisung in Slack. Fällt der Beginn des Orca-Mitgliedschaftsreffens verschoben sein, so dass nicht weniger als eine Stunde vor dem regulären Beginn des Orca-Mitgliedschaftsreffens über Slack durch die Executive zu kommunizieren.

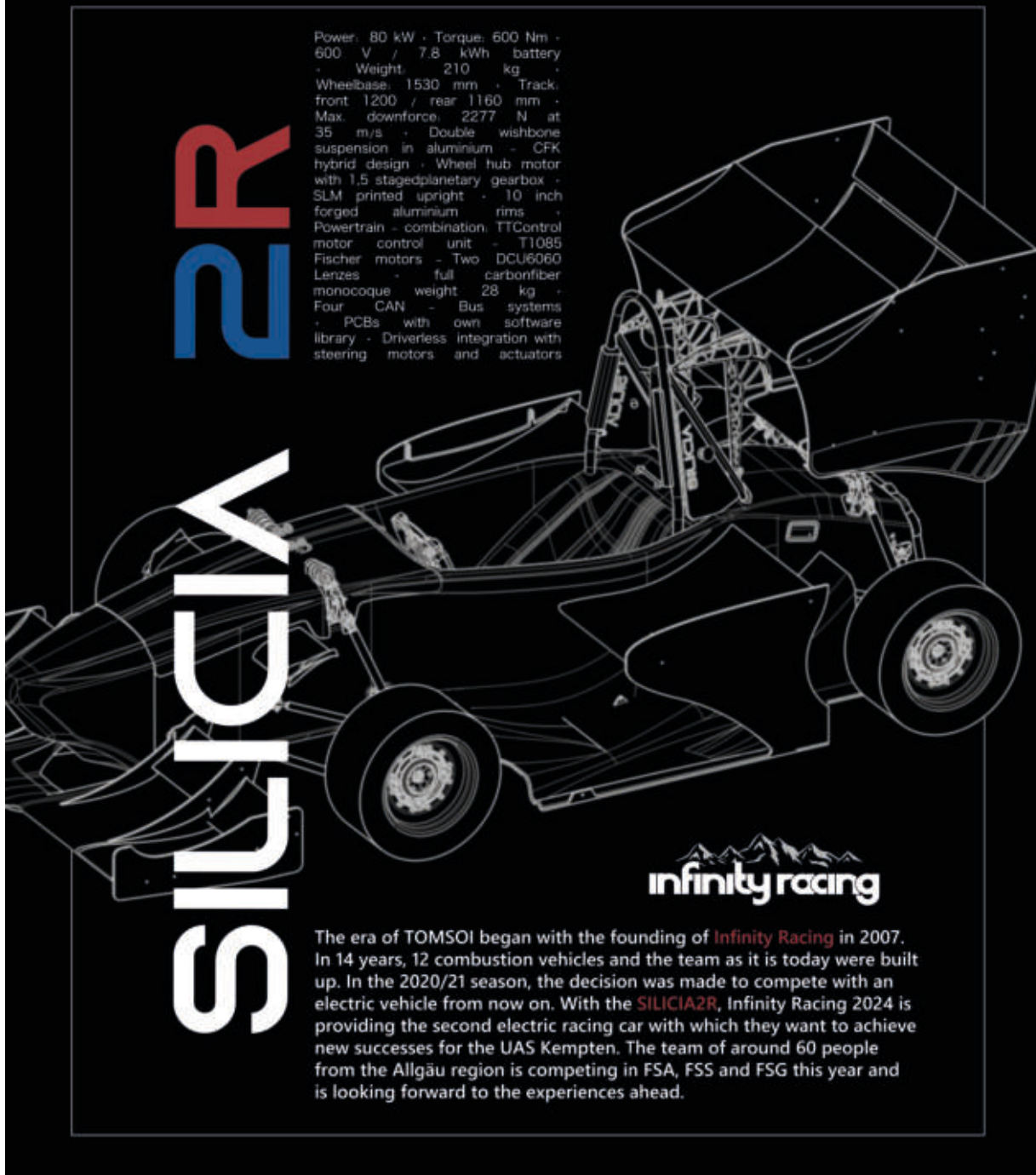


Quellen:
www.voltages.de



E52

Infinity Racing - Rennteam der Hochschule Kempten e.V
UAS Kempten



Power: 80 kW · Torque: 600 Nm ·
600 V / 7.8 kWh battery
· Weight: 210 kg ·
Wheelbase: 1530 mm · Track:
front 1200 / rear 1160 mm ·
Max. downforce: 2277 N at
35 m/s · Double wishbone
suspension in aluminium · CFK
hybrid design · Wheel hub motor
with 1.5 staged planetary gearbox ·
SLM printed upright · 10 inch
forged aluminium rims ·
Powertrain - combination: T1Control
motor control unit · T1085
Fischer motors · Two DCU6060
Lenzes · full carbonfiber
monocoque weight 28 kg ·
Four CAN · Bus systems
· PCBs with own software
library · Driverless integration with
steering motors and actuators



The era of TOMSOI began with the founding of **Infinity Racing** in 2007. In 14 years, 12 combustion vehicles and the team as it is today were built up. In the 2020/21 season, the decision was made to compete with an electric vehicle from now on. With the **SILICIA2R**, Infinity Racing 2024 is providing the second electric racing car with which they want to achieve new successes for the UAS Kempten. The team of around 60 people from the Allgäu region is competing in FSA, FSS and FSG this year and is looking forward to the experiences ahead.



E53

TU Graz Racing Team

Technische Universität Graz

TANKIA E53

VALERIE

After the strong performance of our TANKIA 23, Valerie shines brighter than ever! The new chassis design maximizes her aerodynamic prowess, giving her a significant edge on the track. It's not just about looks; every detail has been fine-tuned for peak performance. With advanced materials and technologies,

Valerie's performance is unmatched. And let's not forget the human touch – our dedicated team has poured countless hours into making Valerie a standout champion.



HARD FACTS

TYPE	BIG BEAR JUNKIES
SUSPENSION	LOTS OF JOBS (POE EATING BUNNY)
PER VOLTAGE	COME BY LANCEY ITALIAN
ACCELERATOR	POWER CELL LAGUNA
LEAD VOLTAGE	ALMOST AS POWERFUL AS A4
WHEEL	LIVE AND TEST PERIOD
ENGINE	STILL DRINK PEEN LAST YEAR
WIND	YES, NOT CAR PEOPLE LACKING DRIVEN
SURVIV	BEING AVOIDER STANDARD

With our fresh monocoque comes a fresh approach to Aero. Our Wingmasters have embraced a simple philosophy: More is More! More area means more downforce, more stiffness means more stability, means more perfor-

mance! While the suspension tweaks might be subtle to the eye, rest assured, the team really brought their A-game this year (fuelled by copious amounts of grilled cheese and pasta, of course) and is

ready to debut some seriously cool new ideas.

As for our electronics wizards, they're still busy concocting their mad scientist experiments from last season. At the rate they're going, we might be forced to apply for an airspace permit next year.





E54

BCN eMotorsport

Barcelona School of Industrial Engineering - ETSEIB - UPC



After a 3 year absence from FSA, we're Barack.

#CATisBACK

BCN eMotorsport, previously known as ETSEIB Motorsport, is the Formula Student team from Barcelona. It was founded in 2007 by a group of 13 students, and in the first years, four combustion cars were developed. In 2012, the team (sadly) left behind loud engines and became the first Spanish team to design and manufacture an electric Formula Student car, the CAT05e. In 2018, Driverless UPC was created, becoming the first Spanish team to compete in the autonomous electric category. Two years later, it was decided to merge both teams into the current BCN eMotorsport.

We are extremely excited to kick off this year's competition season at the fabulous Red Bull Ring with our latest challenger, the CAT16x. The sixteenth prototype of BCN eMotorsport is an evolution of its predecessor, and followed a continuous design path. We're eager to see it in action!

Technical specifications

Dimensions	2947 x 1407 x 1189 mm
Weight	Yes
Monocoque	Carbo Fiba
CoG	Above ground
Wheels	José 16"
Suspension	Same as last 3 years
Wings	Perfect for sticker placement
Differential	El Torke Vektoring
Max. Power	Rather not say
CO ₂ Emissions	What?
Torque	29.1 Meowton Meter
TSAC	Sponge
LV battery	Fire-proven 🔥
Sleepless nights	Never enough



2007

ETSEIB Motorsport
Pioneering Formula Student in Spain

ETSEIB Motorsport
First Spanish Electric FS car



2011



Driverless UPC
First Driverless FS car in Spain

2018

ETSEIB Motorsport
Downgrade to 4 in-wheel motors



2019



BCN eMotorsport
ETSEIB Motorsport & Driverless UPC merge

2020

BCN eMotorsport
First manual and autonomous fusion car



2022





E58

UPBracing Team E e.V.
Universität Paderborn

THE **UPBRACINGTEAM** X FSA24

After an emotional FSA23, we are back with an even better car and a brand new chassis. In addition, we have (again) focussed on aggressive lightweight construction. Our PX424E is in comparison to the last year a short boii and has a topology optimized brake.



After we missed last year's karaoke (because half of our team went hiking) we are trying to take part in the karaoke session this year. Best case, we get a Podium before. But we don't want to lean ourselves too far out of the window :)

We wish all the competing teams a good event !



**OUR FAVORITE
MEME FROM FSA23**

OUR BUCKET LIST FOR FSA2024

- ☐ FINISH THE 150M OF ENDURANCE, WE DID NOT FINISH LAST YEAR
- ☐ SING OUR PADERBORN LIED @KARAOKE
- ☐ SEE SOME KANGAROOS





#E61

E-Motion Rennteam Aalen e.V.

Hochschule Aalen - Technik und Wirtschaft



THIS IS FERDINAND...

Name: **ERT-12/24**

Car number: E61

Weight: 185 kg

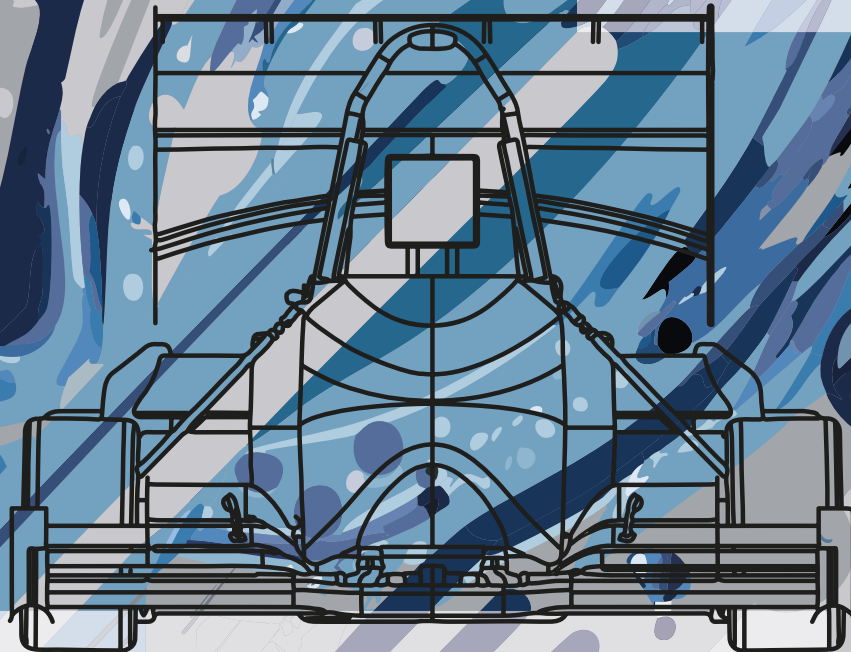
Power: 80 kW

Torque: 1.100 Nm

Wheelbase: 1.535 mm

Track: 1.250 mm

Relative: Bertha **ERT-11/23**



THE TEAM

Members: 51

Team Captains: Furkan Kara (CEO), Anton Gerlach (CTO)

Faculty Advisor: Prof. Dr. Moritz Gretzschel

University: University of Applied Science Aalen (Germany)

Mascot: Freddy Ank

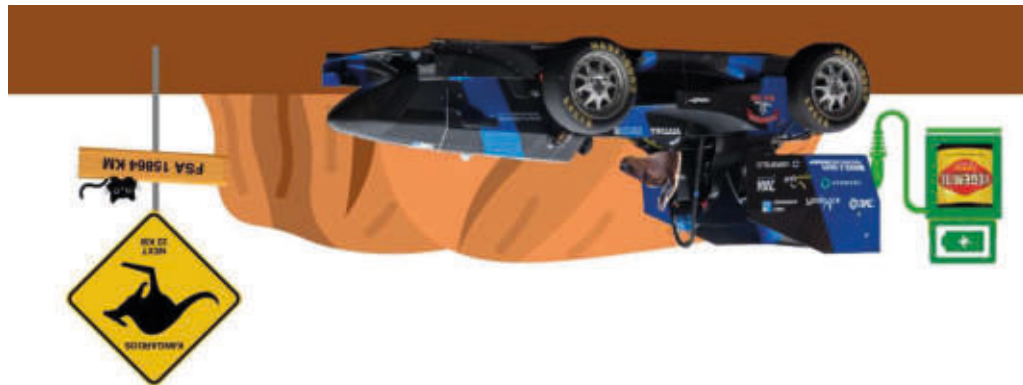
Events 2024: FS Austria, FS East, FS Alpe Adria, FS France

#E61
#E61
#E61



E66

Monash Motorsport
Monash University



LEAKED M24 TECH SPECS

Powertrain	Causes distress 'cries in australian'
Chassis	Extremely legal (pls no more resubmissions)
Accumulator	Spicy sparky box
Aero	Simulation says its good
Steering wheel	Right hand side
Suspension	Exactly as designed
Fuel	Milo and vegemite
Weight	Many kg... about 5x kangaroos
Speed	Is faster than a kangaroo
Favourite tool	Hammer

Monash Motorsport is pleased to announce that there are NOW kangaroos in Austria, as we return to FSA for the first time since 2018 with our latest vehicle, M24. The team in Melbourne has been hard at work preparing to return to the European stage, fuelled by the promise of copious amounts of beer waiting for us in Austria. We are very excited to return to FSA and can't wait to compete at Red Bull Ring!





#E69

HAWKS Racing e.V.

Hochschule für Angewandte Wissenschaften Hamburg



**SOME TECHNICAL
INFORMATIONS:**

**Estimated car
weight:**

(100-27)*2+69 kg

Aero:

always stiff 🐾

Max. power:

yes

Tires:

enough to drive

Driver:

Foxy (the cat)

**HOW WELL DO YOU
KNOW HAWKS AND
ITS MEMBERS?**



DO THE TEST!



This year we will compete in Austria with our latest car H19! After last year we are full of excitement to show you how NOVA performs.

See you in Austria!

**We have hidden 8 words in the puzzle,
can you find them all?**

A	H	N	M	K	A	Z	I	X
C	U	M	V	N	O	V	A	B
H	L	S	T	U	D	E	N	T
A	N	Y	T	W	C	H	I	R
W	D	F	O	R	M	U	L	A
K	S	P	E	Z	I	K	V	W
S	F	B	I	E	R	Z	O	Y

Just as cats can meow in **60** different ways,
we can drink beer in **69** different ways.

#ALWAYSKEEPIXSIXTYNINE





#E71

KTH Formula Student

KTH Royal Institute of Technology



Dev18

Built upon lessons learnt from Dev17, KTH Formula Student is now back with its next generation human and autonomous driven racecar, Dev18.

A completely new aero package, combined with refined power delivery system and driver aids that allows for better grip and performance both in driver and driverless mode. With our biggest and strongest team to date we are confident to push our own and formula student boundaries' further.





#E74

TU Brno Racing

Brno University of Technology

Google

Brno University of Technology, TU Brno Racing

Alle

Bilder

Videos

News

Bücher

Finanzen

Web

Suchfilter

Jsme studentský tým z Vysokého učení technického v Brně, který se účastní celosvětové soutěže Formula Student. Každý rok navrhujeme a stavíme závodní monopost formulového typu, se kterým poté soutěžíme s ostatními univerzitami na závodech po celém světě.

tubrnoracing.cz
https://tubrnoracing.cz
TU Brno Racing

Jsme studentský tým z Vysokého učení technického v Brně, který se účastní celosvětové soutěže Formula Student. Každý rok navrhujeme a stavíme závodní monopost formulového typu, se kterým poté soutěžíme s ostatními univerzitami na závodech po celém světě.

We are a student team from the University of Technology in Brno, which participates in the worldwide Formula Student competition. Every year we design and build a single-seater formula racing car, which we then compete with other universities in races around the world.

This team didn't bother to submit a team-page, so the FSA media eats team created one for them.

You're welcome!





#E76

KA-Racing Electric

Karlsruhe Institute of Technology



Following the successful integration of the autonomous system into the KIT23, KA-Racing e.V. proudly presents the enhanced KIT24 at FS Austria. Leveraging the progress achieved with the KIT23 platform, we've made significant advancements in our Aero package. Furthermore, we've undertaken a complete redesign of several key components, resulting in noteworthy weight reduction for our new vehicle. Specifically, major changes were implemented in our Frontwing, battery system, and monocoque structure. Additionally, we've relocated our lidar to the nose for improved functionality. With these enhancements, we are fully prepared to compete in FS Austria 2024.



E77

IIT Bombay Racing Team

Indian Institute of Technology Bombay



We are an 80-member strong Formula Student team from IIT Bombay, and this year, we are thrilled to compete in Austria for the first time. Already national champions with our latest car, "**Etherion**," we are determined to secure a podium finish this season.

Etherion is a testament to our team's hard work and dedication over the last two seasons. Featuring our first carbon fiber monocoque chassis, a completely redesigned aerodynamic package, and an in-house designed Battery Management System (BMS), it represents a significant leap forward from its predecessor, Evoque.

As one of the underdog teams with a limited budget, we pride ourselves on our ingenuity and relentless work ethic. We learn from the best and strive to surpass them with clever engineering solutions and extra effort.

Our motto, "**Racing up the Ladder**," inspires us to continually push the boundaries of performance and innovation. We look forward to showcasing our skills and spirit in Austria this season.



E88

UniBo Motorsport Electric

Alma Mater Studiorum - Università di Bologna

UniBo Motorsport was born 15 years ago in Bologna, Italy thanks to the passion of 10 students. Now we're more than 250 members working together on three prototypes: an electric motorcycle, an electric car, and a hybrid car.



This is our third electric car, it should have been pretty similar to the previous one then we decided to change evrything just for fun.

We will come to Australia for the second year in a row unfortunately during last season we haven't seen any kangaroos, finger crossed for this year.



in FSG academy

Technical Data

Motors	2 less than the correct number
Top Speed	175 km/h, when falling from high enough
Weight	You don't ask such questions
Wheelbase	3,05 standard cats
Fuel	Beer, Sleepless nights, and Swear words
Differential	$\lim_{\Delta x \rightarrow 0} \frac{f(x + \Delta x) - f(x)}{\Delta x}$
Wheels (average)	< 4
Aerodynamics	200N of static downforce
Efficiency	100% for water heating
New Features	Now it moves, Wi-Fi



*Control systems guy was busy riding his pink Vespa



E90

Dynamis PRC

Politecnico di Milano



Dynamis PRC proudly presents DP15, 4th electric prototype for the third year together with driverless system.

Formed by more than 130 student coming from all engineering and design fields, the Team faces several challenges this season, starting with the change to 10' inches tyres.

We are sad to announce that you won't find anymore the famous Italian brand on our clothes, as many of you desire to exchange clothes basically only for this reason.

This season marks 20 years of the existence of Dynamis PRC, and we tried to celebrate it, spreading our Italian culture in every detail, starting from the livery, as you maybe have noticed.



Technical Data	
Brakes	Hope they do their job properly
Wheels	There should be 4
Powertrain	Freedomaxx
Aero	So much stuff that you can have dinner on it
Best Feature	Italian party mode





#E91

STUBA Green Team

Slovak University of Technology in Bratislava

F*CK IT

WE ARE ROLLING

ENGINE

Our beast under the hood has power that Ferrari dreams of and Tesla has nightmares about.

CHASSIS

So low that even ants consider it a tunnel.

AERODYNAMICS

Our car has wings! (Or at least it flies so fast that we think it does.)

TEAM

We're like an F1 pitstop, just with a smaller budget reserve and a bigger sense of humor.

FEATURES

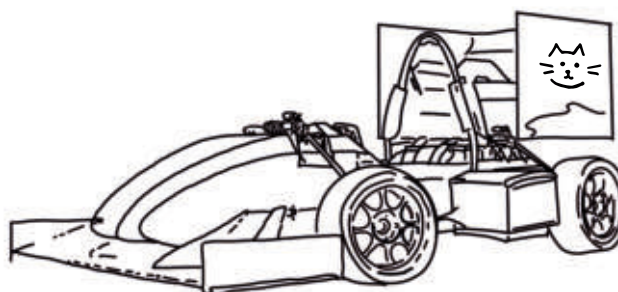
We have more features than a new smartphone, except our car doesn't have a selfie mode. Yet.

ENDURANCE

Our car is like Duracell. It keeps going, going, and going until it stops.



Scan me!



SLOVAK TRADITIONAL SCHNAPS

BOROVÍČKA

FREE SHOT





E96

WHZ Racing Team

Westsächsische Hochschule Zwickau

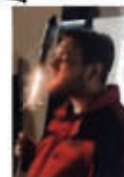
E96

**WHZ
RACING TEAM**

FP16.24e - "eckhard"



Come over and try Mocca Edel if you haven't done it yet!
You can also meet the grandson of it's creator!



Technical Data

Aero	117%
Chassis	schei?e & stroh
Suspension	basically the same (again)
Software	-15% weight
Electrics	>70
Design Software	paint.net



DJ cda-Verlust



Find the hidden cat and you get free beer at our tent!





#E97

LA eRacing e.V.

Hochschule Landshut

“There is order in chaos.”

It sounds challenging, but it has been our path to success in the recent years. With our unity and shared passion, we managed to optimize our car from last season and improve it for disciplines such as Endurance and the Engineering Design Event. We are thrilled to introduce our latest Formula Student car, lovingly called “Ginny Evo”. This vehicle represents the countless hours of hard work, dedication, and innovative engineering by our team.



First, we've developed a new aerodynamic rear wing, enhancing overall efficiency and stability at high speeds. We also have optimized the weight, due to a new manufacturing method.

Additionally, we've redesigned the battery box, optimizing both the weight distribution and arrangement. This improvement not only contributes to a more balanced vehicle but also maximizes the efficiency and safety of our power system.

We've also focused on increasing the reliability of our vehicle. By enhancing fail-safes and implementing more robust systems, we ensure that our car can withstand the rigors of the events with greater consistency.

Our vehicle now sports a new exterior livery, giving it a fresh and modern appearance. Finally, we've improved the driver interface, making it more intuitive and user-friendly. These enhancements provide our drivers with better control and feedback, allowing them to push the vehicle to its limits with confidence.



#E99

High Speed Karlsruhe

Hochschule Karlsruhe



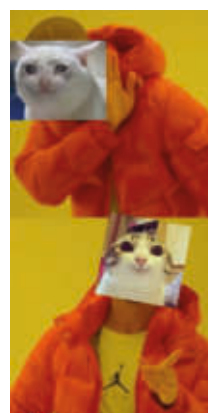
, we at High Speed Karlsruhe developed our first electric race car in more than ten years. Developing and manufacturing our new F-118 over the last season has been quite the journey. But now we are proud to present to you what we have worked so hard for. During the season, we often find ourselves creating various memes that are often rather light-hearted and help us to keep a positive mindset even during tougher phases. We hope you can enjoy these cat/ car memes we have created just for you!



HIGH SPEED KARLSRUHE



		IDEAL WEIGHT F-116 Cats weigh 161 kg
		OVERWEIGHT F-117 Cats weigh 165 kg
		OBESE F-118 Cats weigh 180 kg



team
members
before events

members
during
events

PREPARE YOURSELF

FOR FSA KARAOKE

FSA Karaoke Rules

- K 1:** The point of karaoke is not to find the best singer but to have fun! Good singers are helpful but not an obligation.
- K 2:** Registrations will only be accepted if the car number and at least one full name and optionally band name are mentioned.
Example: #1 Max Mustermann and Friends „Karaoke Crew“
- K 3:** You are not allowed to sign up anyone who doesn't know about it or doesn't want to sing.
- K 4:** Each song will be sung only once. The first to sign up is the first to go.
Rule: First come, first serve!
- K 5:** A karaoke group may consist of a maximum of 5 people on stage. The rest of the team may support from the auditorium.
- K 6:** Only come on stage when you are called upon!
- K 7:** Aids such as outfits or instruments for performance are allowed unless they are dangerous.
- K 8:** You are not allowed to sing while smoking or with a drink in the hand. No drinks allowed on stage!



Check out
the song
selection:



Looking forward to
seeing you on stage!



Invented for life



Work
#LikeA**Bosch**

Working fine? Time to shine.

At Bosch, we turn visions into reality. And we celebrate our achievements. With lots of gratitude and recognition – but also with salary increases, promotions and performance-based bonuses. Sounds good? Apply now at [bosch.at/karriere](https://www.bosch.at/karriere)



We are progress. With you.

Come by and visit us at our stand.



Audi RS e-tron GT: Combined electric power consumption in kWh/100 km (62.1 mi): 20.2–19.3 (NEFZ);
Combined CO₂ emissions in g/km (g/mi): 0. Information on fuel consumption and CO₂ emissions as well as
efficiency classes in ranges depending on the tires and alloy wheel rims used.

