FORMULA STUDENT AUSTRIA

I FSM?



And the second s



FOREWORD

Attention all teams, Dear friends of Formula Student Austria,

Lukas RASCHENDORFER

When you read this, you are hopefully enjoying a nice summers' day at the Red Bull Ring in Austria!

I sure am already looking forward to it writing this. Even

though I have been working in international motorsports for some years now, the raw excitement, enthusiasm and passion on display at a Formula Student event is still unparalleled for me.

While it is already the second FSA after the covid-induced pause in 2020, the pandemics' effects can still be felt in many aspects of daily life – and in Formula Student as well. Economic uncertainty reduced sponsorship opportunities, Teams that were considered "big"

or well established in 2019 are struggling to find enough members to even complete a car in a learn-from-home environment and the scarcity in everything from microchips to basic materials is a burden to FS teams as much as to everybody else. Therefore, a huge amount of respect is due for all teams that managed to get their car working and to the starting line on time.



Despite these hardships, we are again fully booked and are expecting over 1500 students from all over Europe. Sadly, international mobility is still somewhat disrupted,

so no visitors from the US or the upside down down under this year.

Speaking of stranger things – if you look around the paddock you may find a new type of Formula Student car, specifically one with a hybrid powertrain. The respective ruleset has its debut in 2022 and is, apart from FSA, also available at FS Alpe Adria, FS Czech, FS East and FS Netherlands. It allows to add a low voltage hybrid system to a standard FS-CV car and accommodates a wide variety of configu-

rations.

It was developed to breathe some fresh air into the CV class and I am excited to see the first cars employing this tech compete!

Also new to FSA are a whole bunch of exciting partners – make sure to stop by their booths and have a chat about their interesting exhibits or your opportunities as a Formula Student Alumni.

That leaves me to say

"Thank you" to all the volunteers, "Good Luck & Have Fun" to all the teams, ...and "Keep on Racing" to everybody

Lukas Raschendorfer & The FSA Team



Design; Lukas Raschendorfer, Christoph Hirt © 2022 Formula Student Austria





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 CO_2 emissions in g/km (g/mi): 0. Information on fuel consumption and CO_2 emissions as well as efficiency classes in ranges depending on the tires and alloy wheel rims used.





WE MAKE VISIONS A REALITY

Advance. Grow. Succeed.

At AVL we develop pioneering solutions for our customers, realize ideas, and set new trend-setting standards in the automotive industry. We provide our employees with the necessary scope for action – advance to your full potential, realize your visions in real development projects, and grow with numerous exciting tasks in an international network of innovative teams and top-class customers.

This is how a career at AVL begins.



www.avl.com/career





Christoph Hirt Event Manager

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.

Alexander Rauch Dynamics

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





Lukas Raschendorfer Rules, Statics, International Relations

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.

Paul Mayr-Harting Scrutineering, SES

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.







Carolin Reichelt Human Resources & Organization

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

Eugen Hoffelner E-Scrutineering, ESF

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.





Manuel Seeböck Dynamics, Timing

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.

Romana Mocnik Media

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.







Thomas Gerstorfer Head of Design, Scoring

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.

Sebastian Frager Head of Cost

Sebastian knows his numbers and has been Head of Cost for a couple of years now. He is one of the funniest Carinthians around and you could call him a Formula Student chameleon as he's been very active in different areas of his team.





Franz Rabel Head of Business

He is back again - Franz is the founder of the FSA competition and has been taking care of the business presentation part for a few years now. With him, a concept of earning millions in the industry is quickly born.

Alexander Kinzer Organisation

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.







Anika Kloker Human Resources & Organization

With her years of experience in Formula Student, Anika has the FSA organization under control. Together with Caro she makes sure that the whole FSA doesn't get lost and that the event runs smoothly.

the famous FSA Staff

The event would be nothing without our amazing staff team that makes each event possible! You can meet them everywhere on the event site. Maybe you will find one or the other at the campsite to have a cosy after-race beer with them.







Work #LikeA**Bosch**

At Bosch, we care. For you, our business, and our environment.

At Bosch, we shape the future by inventing high-quality technologies and services that spark enthusiasm and enrich people's lives. 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: bosch.at/karriere



Invented for life



SIEMENS DIGITAL INDUSTRIES

Empowering the next generation of engineers

Siemens provides engineering soft-ware grants to Formula Student teams to enable every aspect of automotive racecar engineering. Siemens Digital Industries also has exciting careers for engineers and business graduates. See jobs available at jobs.siemens.com siemens.com/plm



OUR PARTNERS The best in the world



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.



AVL is the world's largest independent company for development, simulation and testing in the automotive industry, and in other sectors. Drawing on its pioneering spirit, the company provides concepts, solutions and methodologies to shape future mobility trends. AVL creates innovative and affordable technologies to effectively reduce CO2 by applying a multi-energy carrier strategy for all applications – from hybrid to battery electric and fuel cell technologies. The company supports customers throughout the entire development process from the ideation phase to serial production. To accelerate the vision of smart and connected mobility AVL has established competencies in the fields of ADAS, autonomous driving and digitalization.

You bring the next generation of innovative thinking. You want to work for an entire industry. You are ready to change the world. We have student opportunities from co-op placements, internships and apprentice programs. Imagine limitless opportunities with us.

www.avl.com

OUR PARTNERS The best in the world



Magna is more than one of the world's largest suppliers in the automotive space. We are a mobility technology company with a global, entrepreneurial-minded team of 161,000 employees and an organizational structure designed to innovate like a startup. With 60+ years of expertise, and a systems approach to design, engineering and manufacturing that touches nearly every aspect of the vehicle, we are positioned to support advancing mobility in a transforming industry. Our global network includes 340 manufacturing operations and 89 product development, engineering and sales centers spanning 28 countries.

You bring the next generation of innovative thinking. You want to work for an entire industry. You are ready to change the world. We have student opportunities from co-op placements, internships and apprentice programs. Imagine limitless opportunities with us.

magnacareers.com

SIEMENS



SIEMENS DIGITAL INDUSTRIES SOFTWARE

Siemens provides engineering software grants to Formula Student teams to enable every aspect of automotive racecar engineering. Siemens Digital Industries also has exciting careers for engineers and business graduates. See jobs available at jobs.siemens.com.

Follow Siemens Digital Industries Software products and services on siemens.com/software or on LinkedIn, Twitter, Facebook, and Instagram. Siemens Digital Industries Software – Where today meets tomorrow. Follow Siemens Austria on LinkedIn, Twitter, Facebook, and Instagram. Further information at www.siemens.at.





ZEISS is technology, optics and innovation. We develop, manufacture and sell highly innovative products and solutions for our customers in a variety of business fields.



At Bosch, we care. For you, our business, and our environment.

At Bosch, we shape the future by inventing high-quality technologies and services that spark enthusiasm and enrich people's lives. 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.

OUR PARTNERS The best in the world



CERATIZIT - With passion and pioneering spirit for hard materials

For over 100 years, CERATIZIT has been a pioneer in developing hard material solutions for machining and wear protection. The private company, with headquarters in Mamer, Luxembourg, develops and produces highly specialised cutting tools, inserts, rods and wear parts. CERATIZIT Group is the global market leader in various application segments and develops new carbide, cermet, and ceramic grades.

With over 7,000 employees, more than 25 production facilities and a sales network with over 50 branches, CERATIZIT is a global player in the carbide industry. The company's international network includes, among others, the subsidiary Stadler Metalle and the joint venture CB-CERATIZIT.

We continuously invest in research and development and hold more than 1,000 patents. Innovative hard material solutions from CERATIZIT are used in various sectors, including mechanical engineering and toolmaking, automotive industry, aerospace industry, oil and gas industry and medical industry.





EDAG is an independent engineering service provider working for the mobility of the future. The company has a global network of some 60 branches at the world's major automobile centers to serve leading national and international vehicle manufacturers and technologically discerning automotive suppliers.

EDAG also offers complementary engineering services in the vehicle engineering, electrics/electronics and production solutions segments for the automotive industry but also many other sectors such as motorcycles, commercial and special-purpose vehicles. This extensive competence enables EDAG to provide its customers with all-round support, from the original idea to the initial design, through to product development, prototype construction and even turn-key production systems. As an innovative technological leader, the company also has competence centers for ground-breaking future technologies, for instance lightweight design, eMobility, digitalization, integral safety, cyber security and new production technologies.

Find out more about EDAG as an employer on www.edag.com/en/karriere and on social media.



ITK Engineering: your partner for future technology

With over 1,300 associates, ITK Engineering is an internationally recognized technology company. ITK is characterized by high-level expertise in the digitalization, electrification, automation, and connectivity of systems. Through the tailor-made development of systems and software, particularly in the field of embedded systems, ITK is helping shape the mobility of tomorrow. In doing this, the company's goal is to inspire – on both human and technological levels – and to set new standards. At the heart of this enterprise are long-term and sustainable partnerships, with customers and associates alike.

Founded in 1994, the company is headquartered in Rülzheim, near Karlsruhe in southern Germany. ITK has subsidiaries in Munich, Ingolstadt, Stuttgart, Lollar, Frankfurt, Braunschweig, Friedrichshafen, Berlin, Cologne, Wien (Austria), Barcelona (Spain), Detroit (USA), Tokyo (Japan), and Wuxi (China). The company is a subsidiary of Robert Bosch GmbH since 2017.

www.itk-engineering.com, www.itk-career.com

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 preserver 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
- Boosting projects for supporting the market penetration of sustainable energy technologies Relevant to the climate.





OUR PARTNERS The best in the world

Internationales Wiener Motorensymposium

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 44th International Vienna Motor Symposium will take place from 26 to 28 April 2023 in the Hofburg Conference Centre Vienna.

https://wiener-motorensymposium.at/en/



Mubea Carbo Tech is known as high-end fiber reinforced plastic component supplier of the global Mubea Group when it comes to lightweight applications. Focused on Research & Development we manufacture composite components at the highest level for our global customers. Whether automotive industry, aviation, motorsports or in the field of industrial applications, Mubea Carbo Tech delivers the mobility of tomorrow. We offer our global customers a full service package beside some built-to-print applications. Starting with the Development, Design and the customized manufacturing technologies up to the finished component. We offer structural and hybrid components starting from prototypes up to a purpose built high volume production.

For our Headquarter in Salzburg (Austria) and our production locations in the Czech Republic and Germany, we are steadily looking for employees who carry the Carbo Tech DNA: Commitment, team spirit and a strong pioneering spirit which are the foundation of our global success.

Making Decisions. Quickly and Independently.



Engineering at ZEISS

International teams and projects worth millions – that's all in a day's work for project leader Benjamin. "While there is a great deal of pressure, I do enjoy taking responsibility." He is passionate about taking the lead on his technology projects.





Seeing beyond

We create a large number of products which shape our immediate environment and our everyday life. Our values define what is expected from us and what is encouraged in our daily work practices.



Teamwork

We build strong teams by trusting each other.



Fighting Spirit

We create value by setting ambitious goals.



We do better every day by challenging ourselves.

Long-term Thinking

We deliver lasting value by being committed.

Find out more at:



ceratizit.com/int/en/career/job-offers.html

CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

Tooling the Future

ceratizit.com



FORMULA STUDENT

Scope and History

"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."

Formula SAE Rule A1.1: Competition Objective

he 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 sucessfully 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. 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.



DISCIPLINES



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 a guickly 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.

Maximum Score: 75



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.

Maximum Score: 75



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.

Maximum score: 100

The Endurance race takes part on a closed autocross course over a distance of 22km. 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 laptimes during the Endurance are used to calculate the Efficiency score.

Maximum Score: 325 (Endurance) / 100 (Efficiency)









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.

Maximum Score: 150

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

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

Maximum Score: 100 (Cost) / 75 (Business)



When all the events are over, the scores are added up and the Winner Over All is determined. Additionally, prices are given to the best teams in each discipline. From 2014 on, the scoring was split between cars with electric and combustion powertrain.

Maximum Score: 1000 2021 Winners C: 1. HS Esslingen 2. Politecnica de Valencia 3. UAS Graz

2021 Winners E: 1. RWTH Aachen 2. ETH Zürich 3. TU & UAS Tallinn





University of Seville ARUSc



Since its founding in 2012, being the first team from Andalusia, in southern Spain, ARUS has manufactured 8 combustion and 4 electric cars, being also the only Spanish team competing in both categories simultaneously. After demonstrating a high reliability last season (4/4 endurance) and establishing as the best team in the business event, our goal this season is achieving top 10 in all competitions, always keeping that spirit and that joy that makes us be remembered by everyone who happens to share a moment with us. FORZA ARUS!



Technical Data			
Engine	2003 Honda CBR 600RR	Differential	Drexler
ECU	Link G4+ Extrem	Max. power	95 HP
Wheels	18x6.0-10 R20	Dimensions	1535 WB/ 1250 Track
Electronic Gadgets	All of them!	weight	221 kg without driver
Suspension	Double A-Arm pull rod front	Frame type	Steel spaceframe
	Double A-Ann pusit tou tear		
Fuel	RON98	Driver	Specialized members
Wings	Front and rear wings, with an undertray mounted too	Best Feature	4 th FSS2021 Overall



Hochschule Darmstadt FaSTDa Racing



Goodbye Combustion is the motto for our team at the Spielbergring this year.

We are incredibly excited about a very special event in the team's history. The last time we participated in FS Austria was in 2019 with our then race car F19 aka "Kathi" and we were

able to experience some eventful days. Unfortunately, we were unsuccessful in taking the chequered flag in Endurance back then, but this year we will return stronger than ever. Team F20 will experience FS Austria as its sixth event and also as the last event with combustion engines in the history of FaSTDa Racing.

Over 2 years of development and production time have gone into our F20 and in 2021 it could already achieve various successes. With the claim to design every relevant component ourselves, the team uses the latest technologies and manufactures the majority of all components themselves. This includes, for example, our carbon monocoque.

Since 2021, various upgrades have also been made to the aerodynamics, the drive system and the chassis setup, so that we have an even more reliable race car.



Our team - FaSTDa Racing - was founded back in 2007 at the University of Applied Sciences Darmstadt and now includes over 50 members from more than 15 courses of study, who push themselves beyond their limits year after year in order to surpass results achieved in previous years. Since we just couldn't get enough of our F20 after 2021, we again set the main goal of reaching the top 10 on all competitions in 2022. However, success is not everything in FS Austria! Above all, we want to say goodbye to 15 years of combustion history. Therefore we would like to thank the FS Austria team, who made it possible for us to take advantage of the full 365 days a Formula Student car is allowed to drive.



Now, we are looking forward to a great event with strong competition and a last time of engine noises on the race track.

Technical	Data
recinica	Dala

Technical Data			
Engine	'Slightly' modified	Weight	169kg
5	KTM 450 SX-F	0	5
ECU	Bosch MS6.1	Dimensions	2896x1452x1195
Differential	Drexler LSD	Suspension	Never change a
		•	breaking system!
Max Power	YES! (74HP)	Tires	Black and round
Fuel (car)	Alcohol! (+15%	Fuel (team)	Beer and Ebbelwoi
	petrol)		
Chassis type	CFRP bathtub with	Aerodynamics	1 Bahr downforce
	aluminium	-	
	honeycomb core		
Electronic Gadgets	A lot	Best Feature	Faxe-Catchcans



Technische Hochschule Mittelhessen THM Motorsport



After a two year break and competing in Moto Student, we are happy to be back at FSA in Spielberg. Focusing on building up on the previous car and extracting its full potential, our small team managed to build a powerful, reliable and fun-to-drive racecar. Please feel free to come and visit us at our Pit or Campsite to have a chat or just for a drink or two.

When you realise that the deadline for the upload is tomorrow:



Technical details

Weight	45 cats
Dimensions	6.41/3.13 cats
Frame type	One piece tubular
	spaceframe
Tires	Continental C19, 205/470 R13
Engine	Honda CBR600RR PC40
Max. Power	118.6 kCat
Torque	63 Nm
Fuel	RON 98



University of Bath Team Bath Racing



Team Bath Racing has been one of the highest ranked UK Formula Student teams since its inception in 2000. Since then, the team has gone on to make 20 different cars, competing in competitions across Europe and America, and becoming the first UK team to ever win an FS event

overall. However, this year marks the final combustion FS car from Bath, with the team instead focusing on Hydrogen ICE vehicles, while the sister electric team continues.

This year, TBR22 is determined more than ever to leave its mark on the European competition scene, with one final tour before hanging up the racing boots. To do this, the team has built one of the lightest cars to ever come from Bath (including those without aero!), combined with a simplified but improved powertrain and vehicle dynamics pairing. The chassis is the lightest monocoque ever produced by the team, and for the first time since 2015, CFRP wheels are making a return. The aerodynamics has drawn heavily on the ideas of reducing drag and managing tyre wake. Still running a KTM 500, the powertrain has opted to forego forced



induction in place of reliability through testing, and better performance through further mapping. A hand clutch replaces problematic electro-hydraulic systems, and pneumatic shifting promises fast, precise gear changes.







Engine	Kat-TM 500 (Beyoncé)	Differential	Deleted
ECU	When it connects	Max. power	Unless braking
Wheels	Bluetooth! (see above)	Dimensions	Quite Long, little bit less wide
Electronic Gadgets	Unnecessary	Weight	NOT VERY MUCH!!
Suspension	Doesn't match the livery	Frame type	Cat-Fur-Reinforced-Polymer
Fuel	Fancy Vodka	Driver	Wants more caffeine, plz
Wings	Far, far too complicated	Best Feature	Has a stripe



Marche Polytechnic University Polimarche Racing Team



Driven by the passion of a restricted number of students, Polimarche Racing Team was born in November 2013. Always looking to be different from everyone, we developed a fatal attraction for unique solutions, from mass damper to car derived engine.

This year will be the last dance for our combustion car, the P4 Evoluzione. The "Pavona" has been by far the most innovative project of Polimarche and gave us the possibility to learn a lot: first full CFRP monocoque, a turbocharged engine, completely new suspension system and a full aero package with active elements.





Before we start our new journey, we are ready to enjoy our last exhaust flames!

Technical Data			
Engine	KTM 690 Turbocharged	Differential	Is this calculus or FSAE?
ECU	When it works, is a MoTec M800	Max. power	1/10 of a Ferrari F8 Tributo, maybe
Wheels	4, but sometimes 3	Dimensions	It fits in a Ducato
Electronic Gadgets	When they work, it's a bit sus	weight	Ha le ossa grandi
Suspension	Ohlins TTX25 with enough fluid	Frame type	A Big Black Monocoque
Fuel	Arrosticini ®	Driver	Lello, Armando Sparadais, Giuseppe Simone, Andrea Diprè
Wings	Enough for sponsors	Best Feature	It breaks even standing still



Universität Stuttgart Rennteam Uni Stuttgart



Technical Data – F0711-16

Engine ECU Brakes Wheels Electronic Gadgets Suspension Fuel Wings 4 Banger MeowTec Too hot to handle 4; round; black Spinny nobs on the steering wheel Existing BIO sugar beets 19 Differential Max. power Noise Dimensions Weight

Frame type Driver Best Feature d/dx, posi-trac Sufficient Waaaap p waaaap p waaaap 1610 WB/ 1215 Track 2772,86 slugs

Mono-Küken Faster than the stig The small driver need's a seat cushion



Czech Technical University in Prague CTU CarTech

Changes for the FS.14 were very simple:

- Hybrid powertrain with custom battery
- All new aero
- ☑ Completely reworked suspension
- Ø Optimized engine position and lubrication





You, expecting a perfect part

CNC mill operator



We wanted to add more information, but cat meme requires a lot of space.



Looking forward to being at FSAustria for the first time in the CTU CarTech team history.

Technical Data - you don`t need to use this table :)			
Engine	Yamaha YZF R6	Differential	Drexler on LSD trip from v2010
ECU	We don't talk about that	Max. power	Yes
Wheels	Out of stock	Dimensions	2922/1412/1185 mm
Electronic Gadgets	5 th gen BSPD in 3 years	Weight	Slightly above 200 kg
Suspension	Decoupled roll and heave	Frame type	CFRP monococque/steel frame
Fuel	Hybrid Ron 98/electricity	Top Speed	1.10x10 ⁻⁷ speed of light
Wings	Powertrain service optimised	Best Feature	Hybrid powertrain



University Carlos III of Madrid MAD Formula Team



After taking seriously the 2020 FSA Magazine Upload, MAD Formula Team finally got the memo and made some memes.

Considering that this year we've had a sponsor run over by a bus, some minor fires, lost our shared documents, CAD and well get a laugh in before the car goes up in flames (again).

Making terrible jokes

Taking

Upload

seriously





The car we designed

The car we built



TECHNICAL DATA			
ENGINE	The power of dreams	BEST FEATURE	Mostly fireproof
ECU	Burned once	SUSPENSION	Troublesome
DRIVERS	Too fat	FRAME	The stiffest 'coque
TYRES	Not fat enough	DIMENSIONS	Short
WEIGHT	Don't ask	DIFFERENTIAL	The boring kind of LSD
ELECTRONIC GADGETS	Lights up	MAX POWER	Between pitiful and
			terrible
FUEL	Very expensive	WINGS	More than last year

University of Modena and Reggio Emilia MoRe Modena Racing





We are MoRe Modena Racing, a couple of students, from the heart of Motor Valley, who try, since 2003, to build the badassest race car: at the end of the page we will reveal our secret.

MMR is currently on a positive trend, with promising results achieved in the past seasons, where each component is being pushed to its limit.

From 2017, the MMR family has expanded thanks to the birth of MMR Hybrid: the first hybrid team to ever compete in the Formula Student competition.

The M22-L is the result of years of work carried by the team, that each season increases the performance of every component of the car. It was a

very long journey, but we did it! All this was possible only thanks to the support of our trusted pizza maker who churned out miles of motivation every day. We love you!

We can't wait to compete in FSA once again!



Technical Data			
Engine	Custom 708cc in-line 4-	Differential	The gold thing between rear
	cylinder		wheels? Yean sure
ECU	Magneti Marelli SRT-E	Max. power	YES
Wheels	CFRP wheel	Dimensions	It perfectly fit on the van
Electronic Gadgets	BB, TC, LC	weight	197kg without "pannetto"
Suspension	4	Frame type	Grooves addicted CFRP
			monocoque
Fuel	E85 from vineyard	Driver	Sometimes good
Wings	+350% stickers area	Best Feature	Starts and runs (mostly)

The secret: the car was designed and built by cats, if not how do you think it can stand up? On the other hand, it is not prohibited by the rules.



Vishwakarma Institute of Information Technology Vishwaracers



Team Vishwaracers, a team which was formed in 2012, is now taking a big step in it's journey by participating in a prestigious formula student event held in Austria. This is a team of students hungry for success and passionate engineers who are willing to do anything for the team.

We have been participating in years now and plan to start held around the globe. We make the foundation stronger for the will be taking over the team after us. we started and are happy to say that year, the speed doesn't matter, knowledge gained by the team



Formula Bharat for like 4 participating in all the event sure that every batch makes upcoming enthusiasts who We have come far from how we make progress every what matters is the members.

This year we are presenting "Vulpes" our 10th generation vehicle and is the most reliable car built in Vishwaracers' history. The vehicle is built in the most cost-effective way without hampering the safety of the driver and car. This car is built for maximum acceleration.

This is our very own cat who is ready to roar on the iconic track of the Red Bull ring. This is our first step to represent our creation and the team plans to give it's best!!

Technical Data			
Engine	KTM Duke	Differential	Locked
Suspension	Yes	weight	250 kg /w driver
Best Feature	Reuse of carbon fibre to reduce carbon print	Frame type	Spaceframe



Technische Hochschule Lübeck Seagulls Luebeck



SEAGULLS LUEBECK

The facility manager at 3 am the night before VSV complaining about the constant grinding noises Our first year still trying to figure out which day it is



Technical Data			
Engine	1		
ECU	15/63 pins used		
Wheels	13" Gang		
Electronic Gadgets	Ignition		
Suspension	Get low		
Fuel	Luft und Liebe		
Wings	As many as would fit		
Differential	limited		
Max. Power	SPEEEED		
Dimensions	Might need C license		
Weight	Yes		
Frame type	Panzerstahl		
Driver	Hannes		
Best Feature	Scrapes the bottom		
	of the barrel, literally		

We the Seagulls Luebeck are one of the youngest teams in the Formula Student competition. Our nest in Luebeck is home to 40 Seagulls. Not to forget Bolle, who gets us out of even the stickiest of situations.

Our special power is to make the impossible possible but only under extreme time pressure. No matter if it is an engine change within 24 hours or having an almost empty frame two days before VSV. Through the suffering joy of experimentation, this year we have acquired some sort of carbon manufacturing. The one or other mishap like a too loud exhaust an especially the production of scrap parts of our Chaos Engeenering separates us from the so called competition ;)

We are proud to participate in Formula Student Austria for the third time. See you behind us on the track – Bring hearing protection.



Universita della Calabria Unical Reparto Corse



Unical Reparto Corse was founded in 2005 by students of Università della Calabria. Today, more than 80 people join the Team. In 2008 the first car called *Faiza* was built and from then to now the Team made 11 prototypes.



designed and produced in our workshop.

The actual car, presented on June 30th, is called "*Anemos*". It is caracterized by a distinctive livery in the colours of our university: amaranth, grey, white and black; University of Calabria was founded in 1972 and, on this year, on the occasion of the 50th anniversary of its foundation, on its channels there is a celebrative logo.

The car is equipped with a KTM 690cc single-cylinder engine with a limited slip differential. The chassis is a tubular space frame, with front and rear push rod suspensions and Continental 13' tires. ECU is a Motec M150, the datalogger is Motec C185 while PDM is student-made. The whole aerodynamic package (front and rear wings, channels, nose and undertray) is

After 13 years, Unical Reparto Corse returns to Formula Student Austria with a totally new project, the result of several years of work.



TECHNICAL DATA				
Engine	KTM 690cc	Differential	LSD (not what you think)	
ECU	MoTeC M150	Max. power	Box, box	
Wheels	R13	Dimensions	3x1,5 m	
Datalogger	MoTeC C185	weight	On diet	
Suspension	Works	Frame type	Tubular Space Frame	
Fuel	Naphtha	Driver	SEH	
Wings	Two	Best Feature	Doesn't tip over when cornering (yet)	

51

Ecole Nationale d'Ingenieurs de Metz Metz Racing Team



We are **Metz Racing Team**, aka **MRT**, the Formula Student team from the National Engineering school of Metz, best known as ENIM. Founded in 2008, the MRT gather 22 students of 5th year during the first semester, with lessons around the race car. For the first time ever, we will represent our colours in the FS Austria event. Moreover, this year, the MRT015 team has the ambition to participate to no less than 4 events.

This year, we will race with the MRT015 VULCAN race car. It brings a lot of innovations :

- ☑ New suspension geometry
- Multi-dimensional aero package
- ☑ Carbon fibre monocoque

Don't trust the appearances, we have big objectives for the FSA event. Here is our checklist :

- 1. Finish the endurance
- Wake Up everybody on the campsite (our musics are marvellous)
- 3. No crying when they give the event results







TECHNICAL DATA				
Engine	Honda CBR600 RRRRRRR	Differential	Yes	
ECU	(MAD) MaxxECU	Mas Power	Over 9000 Katze	
Wheel	Everything that has a	Dimension	WB 3,8x Maine coon,	
	circular shape	Dimension	tracks 3,4x Maine coon	
Electronic gadgets	We love gadgets	Weight	27 Maine coon	
Suspension	Double A-Arm cat push	Frame type	Ham and cheese Sandwich	
			Structure	
Fuel	Famous Picon bière	Driver	Doggo bark bark	
Wings	Tha same as a flying cat	Best Feature	Sometimes may be good	
			Sometimes may be shit	



Fachhochschule Coburg CAT-Racing



The **margay** (Leopardus wiedii) is a small wild cat native to Central and South America.

This incredible cat is a skillful climber and spends most of the time in trees. Chasing birds and monkeys in treetops is one of its favorite activities. It can turn its ankles up to 180 degrees, and by that it can grasp branches easily using its fore and hind paws. The margay is able to jump up to 3.7 m horizontally.

After 15 years of CAT-Racing we built our 14th car, the **C-22 Margay.** This season the car features Hoosier 16x7,5-10 LCO tyres and a CFRP monocoque paired with a steeltube rearframe, powered by a 4-cylinder Yamaha R6 engine. On top of that our C-22 has a completely new aero package and a new asymmetrical design. We are looking forward to a successful season with our new and agile Margay.

Design:	Front monocoque & steeltube rearframe			
Mass:	23 kg			
Torsional stiffness:	3000 Nm/deg			
Power Control:	Bosch MS6			
Testing:	Special wiring harness, sensors & actors			
Assist Systems:	Launch control			
Tire:	Hoosier LC0 16"			
Wheels:	Custom CFK-Shells			
Upright:	Titanium laser melted			
Engine:	Yamaha YZF-R6			
Cylinders:	4			
Throttle Body:	Butterfly ETC			
Type:	4 CFK-Wings			
Downforce:	Too much			
Cl:	-3,58			





Fachhochschule Aachen Aixtreme Racing



We are Aixtreme Racing, the Formula Student team of the University of Applied Sciences Aachen. We developed the FS22 as a reliable and driver friendly combustion race car. Our team currently consists of 25 team members. This year we are happy to celebrate 15 years of existence.

Based on the designs of the previous vehicle, all systems and components were revised in their function to support the development goals of the FS22. The objectives were defined as follows. The FS22 is intended to be a high-quality racing vehicle, with diligent manufacturing, using as little expenses as possible on the components, while providing the highest possible reliability. The whole production should be as cost-efficient as possible. Complicated manufacturing processes are only used where they offer



added value in terms of major weight reduction or vehicle reliability. The vehicle should be easy to understand while providing a high learning effect. The driver interface is user-friendly and offering multiple inputs to adjust



the behavior of the vehicle at the same time. This is supported by sophisticated data analysis that enables an exact evaluation of the vehicle and thus simplifies application and setup.

The FS 22 is the fifth vehicle, which consists of a monocoque and a welded rear frame. At the same time we always build three vehicles from the same original models. This makes the FS 22 the second of its generation.

An excellent example of the further development of components is our steering wheel. It enables the

intended user-friendliness. It was redesigned, constructed and 3D printed as a prototype. After it has been tested and evaluated by our drivers, changes have been noted and revised. The manufactured CFRP steering wheel was then bonded with all milled parts and the necessary electronics.



If you have any questions please contact us: info.aixtremeracing@fh-aachen.de

Technical Data

600ccm Yamaha RJ09	Differential	LSD rear differential
Cosworth Antares 8	Max. power	57 kW
205/470 R13	Dimensions	2662x1696x1056 mm (l x w x h)
Cosworth Data logging	Weight	202,6 kg
KW Competition 3A	Frame type	Hybrid (CFK Mono & steel tube)
RON 98	Driver	
No wings no worries	Best Feature	Steering wheel
	600ccm Yamaha RJ09 Cosworth Antares 8 205/470 R13 Cosworth Data logging KW Competition 3A R ON 98 No wings no worries	600ccm Yamaha RJ09DifferentialCosworth Antares 8Max. power205/470 R13DimensionsCosworth Data loggingWeightKW Competition 3AFrame typeR ON 98DriverNo wings no worriesBest Feature


University of Cambridge Full Blue Racing



The University of Cambridge's TTP Full Blue Racing is making their return to in-person competition after the pandemic this year. This marks the first time that the team has attended FSA in over a decade. The team's 2022 car uses an improved chassis with better vehicle dynamics. The new dashboard provides the driver with better access to sensor data, and a pneumatic paddle shifter system enhances driveability. The team would like to thank their sponsors for their support this year.





TAMK University of Applied Sciences Tampere Formula Student



We are Tampere Formula Student from Finland, and we surprised even ourselves in this year's quizzes by making it to FSA again!

We're coming to the competition with our amazing & highly improved TFS22 sauna! Oh, and we are also bringing a formula.

Our favorite thing about the competition is not working through the whole night at the pits (has never happened and will always happen). We're more into making friends and shouting loud elven language words.





Also a little secret: Oulu pilaa aina kaiken

Technical Data			
Engine	Perkele.ipt	Differential	$df = \frac{d}{dx}f(x_0, y_0) \ \mathbb{E} \Delta x + \frac{d}{dy}f(x_0, y_0) \ \mathbb{E} \Delta y$
ECU	Self -raised Siamese (cat)	Max. power	3,75 x sauna stove
Tyres	LT275/60R20	Dimensions	3000x3000x2500 (sauna)
Electronic Gadgets	HDMI -AN10 adapter	weight	40kg of stones
Suspension	Killing me	Frame type	Triangeled :D
Fuel	Almost drinkable	Driver	Нетрра
Wings	Tasty	Best Feature	Mitään ei tapahdu



Szechenyi Istvan University Arrabona Racing Team



Waiting for the Hoosier wheels you ordered

Technical data			
Engine	SZEngine-22	Differential	Drexler LSD
ECU	Maxx ECU Pro	Power	83000 squirrel power
Wheels	Hoosier (hopefully)	Dimensions	Longer than it is wide
Electronic gadgets	MoTec Dash, online telemetry	Weight	Lighter than expected
Suspension	Double unequal length A-Arm	Frame type	CFRP Monocoque
Fuel	What we can buy	Driver	Brave, strong, trained
Wings	We got shark teeth too	Best feature	Optomized chassis, CFRP wheels

Established in 2014, the Arrabona Racing Team represents the University of Györ. Our team won their second competition, the Formula Student Russia, afterward we were third in Formula Student East 2019. This year we participate in FSA, FS East, and FSG. The ART_09 is the second car, with CFRP monocoque, the lightweight, and optimized descendant of ART_08, with SZEngine-22 engine, CFRP wheels, and A-Arms. Last year we have some issues in Spielberg, but we come back faster, and stronger, and our main goal is to achieve overall podium places!









Fachhochschule Hannover Campus Motorsport Hannover



Throwback to the year 2007: Under the name "FHH Motorsport Hannover" a small group of interested students brought formula student at the UAS Hannover to life. The team went to Hockenheim in 2007 to get an idea of the competition and to collect some ideas for

the following construction and production of our first single seat formula race car: the Pegasus 09. We had our first experiences with this car at FSG 2009 where we gained valuable knowledge for further development.

Today, the team is known under a different name: Campus Motorsport Hannover. We consist of around 40 highly motivated students. Our home, the University of Applied Sciences and Arts in Hanover, Germany, is the reason to one of our strengths: Diversity – from young to old, from extensive to minimal background experience, members from widely different fields of study... This year's car – our Pegasus 22 – is yet again a visual representation of our combined efforts!

In contrast to its predecessor, the Pegasus 22 is characterised by the new engine control unit "EMU



Black", which made it possible to develop own volumetric efficiency and ignition maps and to integrate an electronic throttle body. We have also developed a new heat protection concept for the exhaust tract. By installing an electro-pneumatic clutch, the Pegasus 22 also has a freely selectable characteristic and thus also seamless clutch control. On the chassis of the car, we have improved the specific torsional stiffness and achieved an additional weight loss of 1.2 kilograms. In terms of innovation in the field of aerodynamics, the integrated measurement technology in the wings as well as optimised CFD simulations are particularly worth mentioning.

Technical Data			
Engine	KTM LC4 690 ccm	Wheels	Continental C20 Slicks and Wets, 205 R13 470
Turbocharger	Garrett MGT1268 with intercooler	Suspension	double A-arm suspension in lightweight construction
ECU	EMU Black, characteristic field determined on static engine test bench	Wings	laminated with carbon fibre and honeycomb aramid in sandwich construction, integrated pressure measurement in each wing element
Clutch	electro-pneumatic, actuated via lever on steering wheel		



Bialystok University of Technology Cerber MotorSport



Red Bull Ring 2nd time in a row!!1!

Cerber Motorsport creates race cars since 2010. During its history, 7 racing cars have been designed. For this year we are coming for the second time to the Formula Student Austria with a slightly redesigned 8th car 🤓 New CFRP monocoque with aerodynamic package, modified wiring harness and innovative solutions in the powertrain engine will hopefully help to finish some endurances in upcoming season! CMS-08 was created by 27 ambitious and hardworking students from Bialystok University of Technology, Poland.





good feels thread!		
I'll start.		
>have car		
>car wanna be drive		
>driving makes car happy		
>i'm happy		
thank you car		

Technical Data			
Engine	VTEC KICKS IN YOOOO	Differential	4 years old
ECU	EMU or something idk	Max. power	86 fluffy kittens
Wheels	4	Dimensions	smol
Electronic Gadgets	55' LCD SCREEN	Weight	Currently on diet
Suspension	?	Frame type	Big Black Monocoque
Fuel	Moonshine	Driver	ROBERT KUBICA DRIVER BŁYSKAWICA
Wings	Much flex	Best Feature	Starts and runs (mostly)





The Northernmost (allegedly) Formula Student team in the world is coming to Red Bull Ring after a two-year break from the racing. Founded in 2013 by only few members, the team has grown into a community with over 50 members.

This year's car, the M03 Evo was built with Finnish sisu and countless cups of coffee and many perkeles. Our new rebuilt Yamaha engine has proven to be reliable. Chassis, suspension and aero have all taken steps forward from the previous years, which means that this year's car will be the meanest and fastest car we have ever built. It may even move under its own power.





EngineYamaha CP2 (MT07)WeightNot a touch over a tonPower1000 KW when you are trying to
impress a girl, on the dyno 57 KWTiresNot this year, maybe next yearFuelDefinitely not from our neighborAeroWill be held on with duct tape

Instagram: @fsoulu Youtube: Formula Student Oulu Website: fsoulu.fi



Hochschule Esslingen Rennstall Esslingen





Another year, another Formula Student Austria! It's the first event in our Formula Student Event calender and we're eager to rock and roll on the Red Bull Ring. A new team has formed around the Stallardo '22. Eager to improve the car, we defined our key goals of drivability, reliability and performance. All these goals are exentuated with a clear view towards the future. We developed a new CFRP rear frame, optimized our aerodynamic packaging and reinvented our front wheels.



Our team is eager to show the full potential of the Stallardo '22 at the event. You're invited to visit us at the pit and the campsite. Feel free to share some good Formula Student moments with us and some cold drinks.

Technical Data			
Engine	KaTer-M 790	Differential	Integral
ECU	Has to be delivered	Max. power	Go hard or go home!
Wheels	4, and big ones!	Dimensions	Fits at least our big cats
Electronic Gadgets	Löwen halt!	Weight	Too heavy to quit
Suspension	They see me hopping, they	Frame type	Fragile
Fuel	Paulaner Spezi	Driver	The Commander
Wings	Hot and Spicy	Best Feature	The whole team



Team	FSUPV-Team
University Name	Universitat Politècnica de Valencia
Car Number	95

We, the FSUPV Team, are a 9th year team with a strong philosophy based on setting selfchallenging season goals that demand an efficient Team and resources management to make the most out of the car. This need for continuous improvement has taken us to be the 2nd in Europe and 3rd in the Formula Student World Ranking. Embracing the challenge of building an autonomous racing system while keeping track performance, our main goal for the season is to be Top 1 in every competition.

Our traditional Honda CBR 600 RR engine has been more modified to increase its torque output and efficiency, which is fitted tour optimised monocoque chassis. Anew aeropackage has been developed. Focusing on increasing downforce, together with the Dynamics sub-team, which has also focused on reducing our suspension assembly weight





Universidad Rey Juan Carlos U Motorsport



Ü Motorsport is the Formula Student team of the Rey Juan Carlos University (URJC), founded in 2016. This season our team developed the sixth prototype, UM06. This car main goal is to set a basis in the team design and manufacture approach for future seasons, as well using it for accurate design validation in track testing.





Among the newest enhancements, noteworthy the development of first monocoque and CFRP rims for weight reduction and a redesinged conical-spline intake which achives a remarkable power and torque increase, as well a new aero package and 3D printed uprights and bellcranks.

As this season highlights, we burnt our ECU, unintentionally (that's what electronics guys say), and we have to make our monocoque moulds twice (because we love using CNC).



Technical Data			
Engine	Honda CBR 600RRRRRR	Aero	Aesthetically nice
ECU	RIP	Max. power	99 bhp
Wheels	0,27 yards CFRP Rims	Dimensions	Almost a ping-pong table
Electronic Gadgets	Please no, they burn them	weight	182 kg. Yep that's real
Suspension	Soft like pasta	Frame type	Bathtub-like hybrid monocoque
Fuel	RON, and cola	Driver	Tall and short. A hell for ergonomics
Wings	Bigger sponsor logos	Best Feature	The person reading this 🐵



Hochschule Karlsruhe Technik und Wirtschaft High Speed Karlsruhe



Engine	Motor is inside
Electronics	LED blinks
Wheels	Almost as big as da wheel on a city scooter
Fuel	Blood of the team members
Power	Horsepower
Speed	Warp speed
Weight	Light as feather, a big feather, a feather with
Wings	Mhhhmmchickenyummy!
Driver	Headless but not driverless
Best Feauture	Sexy as f*ck
Worst Feature	-

We are located in Karlsruhe part of The Länd, the most beautiful place on earth. Every year we build our own special race car. We have build our own small chassis, some people call it average but we call it our huge monocoque. We build our exhaust out of titan which we received via special delivery from the people of the planet titan. The Aerodynamics are as elegant as Michelle Obama. To save weight we are using block brakes of a bicycle.

FSA Judge: Why did you chose this design?

Me:







Fachhochschule für Wirtschaft und Technik Deefholt Dynamics e.V.



We are Deefholt Dynamics, the racing team of the PHWT from Diepholz. We've been part of the FS-Community since 2006. The special thing about us: our car is built every year by a first year team within only six months. This season 60 students joined the project with one goal: To build a competitive car one step at a time as fast as no one else can. Year after year. Big changes were made this season regarding our car. As a result of the semiconductor shortage we had to develop a completely new ECU and AMS. Furthermore, as we are building our 2nd ever CFRP Monocoque every possibility of weight saving was analyzed and optimized

Our main goal this season? Having a great event season with a (hopefully) reliable and performing car.





Technical Data			
Engine	In the trunk – brr brr	Differential	Perhaps, not sure
ECU	Somewhere in there	Max. power	166.040 cats
Wheels	Rolling	Dimensions	3D
Electronic Gadgets	Lots of fancy buttons	Weight	Please don't ask
Suspension	Suspended	Frame type	CFRP monotank
Battery	Please don't explode	Best Feature	Fancy golden MH



Technische Hochschule Ingolstadt Schanzer Racing Electric e.V.

SCHANZER RACING ELECTRIC

Since its foundation in 2010, Schanzer Racing Electric e.V. has been constructing race cars and is participating in the Formula Student Electric. We are part of the university of applied sciences of Ingolstadt,

which is located in Bavaria. This season we will compete with our ninth overall and fourth consecutive all-wheel-drive vehicle called SRe22. The car was constructed, built and tested by a Team of 50 prospective engineers.

Of course, everything worked as it should this season. No delays at all and no mistakes were made. The few, little things that didn't quite work out, found their name pretty quickly:



#KLEINESUPSI





Technical Data				
Engine	600 Volt Battery	Differential	No need for it	
ECU	Yes	Max. power	SCHANZER POwer	
Wheels	13 inch Continental	Dimensions	Build like a boat	
Electronic Gadgets	You can never have enough	weight	Heavy as a tank	
Suspension	Bouncy	Frame type	Epoxy resin	
Fuel	We don't need that	Driver	Mario and friends	
Wings	Not enough	Best Feature	Might drive	

Leopold-Franzens-Universität Innsbruck Campus Tirol Motorsport

Joy to the world – Austria's fifth-best Formula Student Team is back on track. After another few weeks with no sleep we can proudly say that we not only Austria's fifth best team, but also the #1 in the west. Thanks to the inspiration from the greatest minds in human history (Hubert Farnsworth, Pastor Maldonado, "Bad Santa" William Storey) and the Zirbenschnaps-fuelled brains of



our technical crew we proudly present our newest creation, and we think you will all agree is very exciting: the e04. The revolutionarier son of our already revolutionary e03 is once again





coated with nanoparticles to make our car sensationally fast and aerodynamic. This year our goal is to start at the dynamic events for the first time. Our drivers are already pumped up on steroids and Red Bull and have already seen and analysed 1.069 F1 Races in preparation.



Technical Data			
Powertrain	Flintstone	Wiring	Long
Tires	As round as a TV- screen	Driver	Rocco S.
Aerodynamics	Hopefully	Efficiency	420%
Accumulator	Overheating	Fuel	Dark Matter
Suspension	Still not broken	Mass	1,234108956788e+38eV (~1,947 McDonalds Cheeseburgers (America - Fuck Yeah))
Chassis	Prison cell	Dimension	1,586-times smaller than a football-pitch



Aristotle University of Thessaloniki Aristotle University Racing Team Electric



Aristotle University Racing Team Electric and Driverless, also known as Aristurtle was founded in 2013 as an Electric Formula Student team. From 2015 until now, our team managed to manufacture 6 race-cars and convert one of them to a driverless, being the first DV team of Greece.

This year's racecar is coming to shake up the news. The first vehicle of the team which is designed to be both driven and driverless, making its convert time minimum. The integration of the autonomous





system led to a redesign of

the whole steering and brake system and at the same time, researches about the existing power train and the dynamic performance of the vehicle took place in order to create an upgrated Aristurtle's vehicle. Keep your eyes open for the Turtle!

Technical Data - you do	n`t need to use this table :)		
Engine	EMRAX 188	Differential	Electronic adjustable
ECU	dSpace Microautobox II	Max. power	78 KW
Wheels	Housier R25B	Dimensions	1535 WB/ 1200 Track
Electronic Gadgets	Custom made Telemetry, Datalogging, LCD Display	weight	198 kg /w driver
Suspension	Double wishbone with antiroll bar and adjustable damping factors	Frame type	Aluminum monocoque
Fuel	Current	Driver	Vaggos Tzouv
Wings	Carbon fiber bodywork and aerodynamic package	Best Feature	It can do both



Budapest University of Technology and Economics BME Formula Racing Team (FSE)



BME FORMULA RACING TEAM

BME Formula Racing Team is the pioneer of the Hungarian FS teams. At the beginning, we made cars powered by gasoline, but in 2011 we were **the first team** in the country to switch to the more innovative electric category.

The **successful 2021 season** - where we built a rocketship that could do 0-96 km/h in 1.8 seconds somewhere sometime, and a driverless cone collector - provided a great foundation for our 2022 project, where we made the two into one, **building an EV/DV car**, luckily we can't use those advantages here.



BASIC DATA	
Mass	188 kg
Acceleration	0-112 km/h in around 3 seconds
Top speed	112 km/h with fix gear ratio
MOTORS	
Туре	4 db AMK DD5-14 PMSM
Max. RPM	21 500 1/mir
Max. performance	35 kW (per motor
Max. torque	21 Nm (per motor)
Motor controller	AMK KW26 FSE
Cooling system	water cooling, 4 heat exchangers inverter with cooling plates

DRIVETRAIN	
Туре	all wheel drive planetary gearbox assembled into the hub (1.5 stage)
Gear ratio	14:1
Wheel torque	336 Nm
Torque distribution	electronically controlled independent torque control
CHASSIS	
Туре	self designed carbon composite, made from human blood and tears
Impact Attenuator	Aluminium honeycomb



Ghent University UGent Racing

This team didn't bother to submit a team page, so the FSA social media cats-team created one for them. You're welcome.







Universität Bayreuth Elefant Racing e.V.



Founded in 2004, our team Elefant Racing from the University of Bayreuth is one of the oldest Formula Student Teams in Germany. In 2011 we changed from CV to EV; since 2019 we are using 4WD and since 2020 our team also competes in driverless competitions. We are proud to present our brand new car - theFR22 Thor. The FR22 features a fully integrated DV system, a highly improved torque vectoring and traction control systems. We are looking forward to exciting days at FSA 2022.



Frame Construction	CFRP Sandwich monocoque (aluminium honeycomb)
Material	Carbon Fibre Prepreg (Woven, Biax & UD), Al-honeycomb, balsa and abachi wood hardpoints
Motor	4 self developed wheelhub motors MaToMo-V1.1
Electrical	Self bulit on board computer (raspery pie)
DV Hardware	Self developed Powersteering and EBS-pressure transducer
Suspension	Double unequal length A-Arm. Direct acting spring/damper front, pushrod actuated rear
Sensors	For: motortemperatur, coolingtemperatur, brakepressure, damperway; steering, accelerator and BMS are self-developed
Weight with 68kg driver	278kg
	Fill, if there is time



Fachhochschule Joanneum Graz Joanneum Racing Graz



The team of the U.A.S. Graz - the weasels - got their name from a little animal, which is also their mascot. For many years, the team members live by the characteristics of that "spirit animal": being night-active, agile, fast and hungry for success.

This year, the weasels want to push their boundaries again with their first electric vehicle. Building an electric vehicle from scratch for the first time and then compete at all disciplines are some of the main goals of the *JR22*. The biggest yet most challenging goal is always to win.



SPECS

•	Motors	4x Fischer PMSM
•	ECU	McLaren VCU-500
•	Max. Power	4x 35kCat
•	Accumulator	7.7kCath
•	Wheels	16x7.5 - 10, LC0/R20, Hoosier
•	Dimensions	1535 / 1240 cats
•	Electronic Gadgets	CA(T)N Module, VCU, PDM, live-telemetry,
		multifunctional steering
٠	Weight	wheel
٠	Suspension	42 cats
٠	Frame type	Front and rear
		Closed bathtub
•	Fuel	Electron animals
•	Driver	Fffefan
٠	Wings	More
•	Best feature	Can function as a arill,
		Electronics. Rear wina.
		Weasel

Because the weasels love to spend most of their time in the workshop, we also self-developed our battery, inverter and motor cooling concept. The start of the electric era of course a new monocoque and a new aero package.

FS Austria is the weasel 's favorite competition!

Not only because they only have to drive an hour if they forgot important parts at home, but also because FSA embodies everything Formula Student is about: popular location, spiced with incredible teams, never-ending beer spring and topped with an awesome atmosphere all day long.

The perfect recipe for a competition.



Great job weasels







Tallinn TU UAS FS Team Tallinn Electric



Formula Student Team Tallinn is based in Estonia and is the only team in the country. We are celebrating our team's 15th anniversary this year with a brand-new electric car, the FEST22, and fourth development of driverless car FEST18-DV. Our team is currently fifth in the world ranking and we are pushing to climb even higher.



With the development of FEST23 the focus was on aerodynamics, control system and driveability. Testing showed promising results and we are waiting to show our car off in Spielberg. As we have two consecutive third places from FS Austria under the belt, the hopes are high to repeat a podium position this year, too.



Technical Data	
Engine	AMK x4
ECU	Self-developed, STM based
Tires	Skinny
Electronic Gadgets	Self-developed slip angle sensor
Frame type	DBOM nightmare
Fuel	Grossi toidukaubad
Wings	Passive
Best feature	Driverless free
Suspension	Double A-arm, pushrod actuated, U-bar ARB front and rear



Universität Stuttgart GreenTeam Uni Stuttgart



Technical "Data"			
Top Speed	Well, it's only 125 km/h, but the car is developed for acceleration	Differential	Equations were not used during development
Wheels	Hopefully 4	Dimensions	3 (x,y,z)
Voltage	No more volts to give	Weight	1.541.666 black beans
Suspension	Only if you dont work enough	Noise Level	Louder than any CV
Fuel	Battery-Juice	Driver	less
Price	Less than a Boeing 747-8i	Best Feature	All CAD has been done on a coaster



Technical University of Munich TUfast Racing Team e-Technology



The TUfast Racingteam, which consists of about 90 students is located in Garching at the Technical University of Munich. This year's team is, above all, full of thirst for knowledge and action, fuelled by the archievments of previous years. Therefore, we were motivated to impove the existing concepts and develop new ones to have the best version of the xb022 with the goal of winning the competions.

To make this possible, a main focus was set to the integration of the autonomous components. Thereby, we have followed the motto "less is more" to be as light as possible while making sure that the driver is disturbed as little as possible by the additional components. Moreover, the newly gained room at the rear was fully claimed by our Suspension team to implement a stiffer suspension package, which includes a self-developed roll spring and damper unit to get the best out of the Roll/Heave system.

If you want to see or know more about our new xb022, feel free to come by our pit and check it out for yourself!



Technical Data			
Engine	4 x Aufhax	Differential	Electrons everywhere
ECU	"LV ist fertig!"	Max. power	Sufficient
Wheels	Hoosier balls	Dimensions	1650 Wheelbase/ 1225 Track
Electronic Gadgets	Too many to break	weight	Traditionally the lightest
Suspension	Stiff	Frame type	CFRP Monocoque
Fuel	Electricity	Driver	Sometimes
Wings	Mainly Aero	Best Feature	Always lands on 4 wheels



ETH Zürich AMZ Racing Team

The AMZ Racing team was founded in 2006 by students of ETH Zurich. After having built three cars powered by combustion engines, AMZ has moved forward to developing electric racing cars since 2010.

For this season the AMZ electric Team built their fifteenth car. bernina. bernina is powered by completely self-developed power electronics and motors. Furthermore, a powered ground effect system increases the venturi effect, such that the static pressure reduced when the is fans accelerate. Additionally, an improved hydraulic partially mode decoupled suspension is implemented on the car. A full aerodynamic kit is attached to the chassis to increase grip with the help of a 3D front wing main element



Technical Data -			
Engine	Self-developped PMSM	Differential	17.26 -planetary gearset with staged planets
ECU	Speedgoat	Max. power	43.5 kW per motor
Wheels	16.0x7.5-10	Dimensions	1530 WB/ 1220 Track
Electronic Gadgets	Party mode in the dashboard	weight	187 without driver
Suspension	Double A-arm, push rod hydraulically actuated, roll and war decoupled	Frame type	Single piece CFRP monocoque



Chalmers University of Technology Chalmers Formula Student



We are Chalmers Formula Student, a team from Chalmers University of Technology, Gothenburg. The team was started in 2001, and has since then built a car every year, taking major technological leaps every few years and competing in every major competition in Europe.

This year, the team consists of 40 members who had the main goal of developing a completely new driverless system and integrating it with the EV concept. Thus started a new era for Chalmers Formula Student. Much development has been done to introduce the driverless system, without getting in the way or hampering performance for a human driver. The EV side has essentially been revamped, in order to increase modularity, reliability and performance.

Our best result in Austria comes from 2018, where the team ended up finishing 3rd overall. Of course, we wish to repeat the podium result this year, if not something even better.



Technical Data			
Wheels	Hoosier LC0 16x6.0-10, CFRP rims	Driver experience	Folkrace and rally
Frame type	CFRP monocoque	Dimensions	1530 WB, 1250/1200 track
Wings	Only in theory	Weight	Chonky
Suspension	Fighting the downforce	Electronic gadgets	All the expensive ones



Ostfalia University of Applied Sciences Team wob-racing.



The Team of special awards

We are proud to be part of FSA for three seasons now and we are in love from day one. As the official winner of the 2019 Bobbycat award and the 2021 Rearwing award, we are a guarantee for memorable event moments.

After our infamous Bobbycat win, we created a separate department dedicated exclusively to the development of the little brother of our FS car.



It now includes an electric warp drive for shuttle rides between camping and event venues, extra boost from a 5000 watt bass machine, and a beertrailer to supply all our members. We're on to another award.

@ FSA-Judges: It doesn't have to be "special" by the way ;)

Tecnical Data of the BCat21			
Engine	Electrical warp drive	Towing capacity	0,11 - 0,27 Brenta* beer**
Front wheels	Hardplastics	Power	Enough to throw drivers off
Rear wheels	High performance Hoverboardwheels	Drivers	Brave and a little stupid
Brakes	Proven point of failure	Driverless	

* old Italian room measure, variously defined (e.g. 37 or 88 liters).

** With the code "Reign of the cats" you might get one. Only while stocks last and the driver wants to share.

From now on we might concentrate on our Bobbycat business and skip building boring Formula Student cars.



Technische Universität Wien TU Wien Racing



Technical Data		
Engine		
ECU	Emergency cat unit	
Wheels	7.0x10, 25mm offset, one piece CFRP rim	
Electronic Gadgets	OOF-Machine	
Suspension	Double unequal length CFRP laminated AArms, independenz suspension - coupled with ARB, pushrod	
Fuel	Meows	
Wings	Front wing: Carbon rohacell sand- wich structure Rear wing: Sharkfin (carbon roha- cell/nomex sandwich structure)	
Differential	Not cat approved	
Max. power	80 kilopurrs	
Dimensions	NullPointerException	
Weight [kg]	237 with additional 15 cats	
Frame type	Monocoque sandwich construction with no lap joints	
Driver	Sir Purr of Pawdington	
Best Feature	cat friendly	



For its 15th anniversary, TU Wien Racing is competing with its 8th electric vehicle, EDGE13. After years of running RWD concepts, the team is now tackling the next frontier by switching to all-wheel drive.

TUWR is using a completely revised drivetrain packaging featuring an all new self-developed 30kW wheel hub motor. The EDGE13 will also be competing in the Driverless events. These innovations provided many exciting challenges for a group of highly motivated students! We are one – 41!





Fachhochschule Konstanz Bodensee Racing Team



HOW IS THE CAR DOING

ELECTRONICS

TWG Konstanz

essence of sleep deprivation, Ruppaner beer, big dreams and a semiconductor crisis carefully chopping our big dreams into not so big dreams.

Our new racecar is the

Our drivers simply wanting to drive

Electronics: "Inverter Roulette"



Using our third Inverter in one Season we not only seek to play another

round of "Inverter Roulette" but also kindly ask all EV Teams to hide their Inverter from our Electronics department, who not only regularly consume but have also written an wiki article about the topic of "small alcohol-free Radler".

In our first year as an EV Team, we thoroughly tested all scrutineers and can tell

GOING TO SCRUTI





you, that most of them are very polite, as long as you do not interrupt them mid-"morning coffee". Even though last year's car did not get all of the desired cat stickers we were able to acquire all of them for our "Zapfe" and are well prepared to greet guests in our

tent. We assure you that all



materials conform to UL94 V-0 and all Screws are critically fastened.

We added whisker wings to our shark-like designed car and hope to create an entirely new breed of animal to run faster than every creature known to men. We thus proudly present to you our new Catfish Iltis22E!

Technical Data - you don`t need to use this table :) – but we still did (:			
Engine	2 (sometimes 1) can be switched into turtle-mode	Differential	going sideways isn't the objective of all this?
ECU	blinks so must work properly	Max. power	32.631PP (polecat power)
Wheels	almost round (someone sat on them)	Dimensions	designed to fit the trailer
Electronic Gadgets	TSAL brighter than the sun	Weight	2115 cans of cat food
Suspension	yes (for now)	Frame type	Rusty but covered mostly by tape
Fuel	fresh from the power outlet	Driver	too heavy
Wings	Curved (some on purpose)	Best Feature	Steering wheel able to run Tetris



Ruhr-Universität Bochum RUB Motorsport



The beginning of a new era! With the 2022 season we venture into a new chapter for RUB Motorsport as we build our first electrically powered car. Since the RUB22e is designed from the ground up it no longer represents an evolution of its predecessor but a completely new car. While low weight has been in our car's DNA since 2016, our focus has shifted

primarily to reliability for 2022. Due to the switch to an electric powertrain with different packaging, we also redesigned our suspension system as well as our chassis, focusing on in house manufacturing and using an entirely different manufacturing technique for the monocoque. The outer layer is made using vacuum infusion, the core is aluminum honeycomb, and the inner layer is vacuum pressed. Our electric powertrain is kept as simple as possible without sacrificing power. For the suspension system, we switched to OZ 10-inch rims with Hoosier 16x6-10 R20 tires. We aim to have our all-new challenger running and want to give a huge thanks to our sponsors and partners for their ongoing support.



Technical Data			
Motor	Emrax 228 MV LC	Differential	Drexler LSD
ECU	Longitudinal movement actuation operator (LMAO)	Max. power	109 kW
Wheels	16x6-10	Dimensions	1560 WB/ 1217 Track
Electronic Gadgets	Brake light	weight	300 kg /w driver
Suspension	Yes	Frame type	Monocoque
Fuel	None	Driver	Conecrasher
Aero	is more of a hobby for us	Best Feature	Electric chair



Universidade de Lisboa Instituto Superior Tecnico FST Lisboa



FST Lisboa was established in 2001 and is the Formula Student team from University of Lisbon. Throughout its history, the team has striven to keep up with the industry's ever-growing demands and advancements. First with the transition from combustion to electric and then with the development of the team's first autonomous car. This year we intend to go even further. As such, during the 2021/2022 season, the team's main objective was to produce its 11th prototype, FST11, built from scratch to be driven both with a driver and autonomously.





FST Lisboa has participated in various European competitions is now attending for the first time to FS Austria. Since it is our first time, we want to make a good impression even though the competition is tough.

Technical Data			
Engine	AMK x4	Differential	Helps cornering
ECU	None	Max. power	75kW
Wheels	13" Magnesium OZ	Dimensions	1540 WB/ 1200 Track
Electronic Gadgets	Might be shocking	Weight	220kg
Suspension	Stiff	Frame type	CFRP Monocoque
Fuel	Electricity	Driver	Best of the rest
Wings	Please don't break	Best Feature	Starts and runs (mostly)



Technische Universität Graz TU Graz Racing Team



Our car for the 2022 season, Ruby is the second EV car we drive to competitions. Gina could only drive her rear paws, the logical next step is for Ruby to learn to use all four for power. But that doesn't mean that our TANKIA 2023 will look like the Tyrrell P34. Or maybe it will, who knows.

Because of the semiconductor crisis the parts of Ruby were delayed more and more, and inverters are not our best friends we were again in trouble.

Fortunately, there are the nice people from the Running Snail Racing Team who helped us after a visit to them to solve the problem. And they beat us at beer pong. Several times. Too many times. The revenge is open, we will strike back.

At the moment we are writing this text, the car is running, the VSV is done and all deadlines are met. So if we make it to the design finals again, we get to keep the trophy this time.





Technical Data			
Engine	Fisher – Losing it	Differential	digital
ECU	Borrowed	Max. power	Super Max!
Wheels	Black and round	Dimensions	3 dimensional
Electronic Gadgets	Snake	weight	overweight
Suspension	4x	Frame type	Very stiff
Fuel	#1000Strom	Driver	Drives always +1 Lap
Wings	More than ever	Best Feature	Has a green light



Technische Universität Dresden Elbflorace



We are Elbflorace, the Formula Student Team from Dresden. Last year was quite successful for us and we want to build on this achievement. That is the reason why we started to design our new car in 2020 and changed some major design aspects. Let's focus on our magical "**HerminE**". This year we will drive 10'' CFRP rims with a smaller drive unit with printed uprights and brake calipers. At the suspension department we designed a roll, pitch and warp decoupled hydraulic spring damper system.





On the aerodynamic side, the new monocoque enables more design space which led to an increase of downforce. Due to the powerful drivetrain, we needed to develop a water-cooling system for the inverter and the accumulator. We also focused on a better integration of the driverless components with success, because we could save more than 25kg compared to last year.

Technical Data			
Engine	Broomstick: Nimbus 1000	Differential	Don't know, ask Prof. Snape
ECU	Black magic	Max. power	3 HP (hippogriff power)
Wheels	Smaller than expected	Dimensions	Bigger than in Mario Kart
Electronic Gadgets	Fancy start button	Weight	Lighter than Hagrid
Suspension	Leaky	Frame type	Ford Anglia 105E Deluxe
Fuel	Butterbeer	Driver	Dementor 1 and Dementor 2
Wings	Made by a muggle	Best Feature	Late on every deadline



University of Patras UoP Racing



The UoP Racing team was founded in 2002 in Patras Greece, by students from department of Mechanical Engineering under the Laboratory of Manufacturing Systems and Automations. After 5 IC cars the team moved on and since 2014 is running in the EV category.

This season our team celebrates its 20-year anniversary and presents its 10th car overall and 5th electric car UoP7e. This season we will enter the Red Bull Ring having one motor on each wheel for the first time on its history. Our design

utilities both a powerful powertrain, a lightweight chassis, and an effective aero package and cooling to achieve

a great overall result. We also deploy an aggressive torque vectoring algorithm making even a cat able to complete an endurance run without breaking (a sweat).





Technical Data – UoP7e	9		
Engine	5.00 AMK Motors	Differential	Torque Vectoring Controlled
ECU	Self-developed using Ti Launchpad	Max. power	122 kW on the track
Wheels	7x10 OZ Central Lock Magnesium rim	Dimensions	Enough to house a cat family
Electronic Gadgets	DRS, electronic parachute	weight	230 kg included our cat driver
Suspension	Double unequal length control arms	Frame type	Carbon Monocoque
Fuel	Flow of electrons	Driver	The Best
Wings	Both regular and inverted	Best Feature	Can survive a rocket launcher



Fachhochschule Osnabrück IRT electric

This team didn't bother to submit a team page, so the FSA social media cats team created one for them. You're welcome.








Hochschule für angewandte Wissenschaften Augsburg StarkStrom Augsburg

The development of our racecar "Josef 'Jojo' Tüftle" followed the motto "MAKE IT ONE". In keeping with this slogan, a car was built for the first time in StarkStrom's history that can drive both manually and autonomously in its very first season. Nevertheless, the focus was not only on autonomous driving. The base vehicle was also optimized and further developed in many aspects.

Our main improvements in a nutshell:

- Newly shaped high-voltage accumulator .
- Slimmer monocogue to offer more freedom for the side wings .
- Relocation of the cooling system to the side box .
- Newly developed steering system: weight reduction of 75 %, clutch mechanism .
- Self-developed 24 V accumulator .



Our season in pictures:





don't work and now FSA is your only chance to be successfull





University of Ljubljana Superior Engineering FS Ljubljana





Duale Hochschule Baden-Württemberg - Mannheim **CURF**



"EMMA" / CM-22x

This year we proudly present our new vehicle CM-22x. The fifth vehicle in our team history will again compete as a combined EV and DV team this season. With our renewed suspension, enhanced aerodynamics, the CFRP accumulator container, the first self-developed transmission and the newly implemented Lidar, we will attack the successes of last year. We are looking forward to meeting you!





TECHNICAL DATA

Name: Emma / CM-22x Car Number: E71 Weight w/o driver 225,2 kg Max System Voltage: 600V Battery Cell Configuration: 144s2p Peal System Power: 136 kW Number of driven wheels: 2-wheel-drive

Frame construction Tubular steel space frame



Duale Hochschule Baden-Württemberg Stuttgart DHBW Engineering Stuttgart e.V.



Our team, the DHBW Engineering Stuttgart, consists of 110 motorsport enthusiastic students of the DHBW Stuttgart. Founded in 2008, we are already competing with our 13th Sleek.

Every season we try to build on previous achievements, push the limits of our performance and strive to improve the lap time. Because of our special form of study, we are highly dependent on a great team spirit. This leads us to our motto: You need an A-Team to build an E-Car.







Technische Universität Hamburg-Harburg e-gnition Hamburg





TU Delft Formula Student Team Delft





After a turbulent year of hard work, the team is proud to announce the newest member of the family: The DUT22. She is an absolute beauty and will undoubtedly be a huge heartbreaker to some. But if she knows you, and you drive her correctly, she will be quite loud and make your heart beat a whole lot faster.



Technical Data			
Engine	ering	Differential	Talk vectoring
ECU	No, VCU	Max Power	English footballer
Wheels	More than doors	Dimensions	3 dimensions
Electronic Gadgets	DRS	weight	3 overweight ten year olds
Suspension	Direct Link front, Ambiguous link rear	Frame type	Carbon Fibre and tears
Fuel	Tosti's and pasta	Driver	Good, but not as good as he says he is
Wings	72 elements, 46 less than the periodic table	Best Feature	Her eyes



K. J. Somaiya College of Engineering Orion Racing India



Orion Racing India is a student run, non-profit racing team based in K.J.Somaiya College Of Engineering, Vidyavihar, Mumbai. We are a team of budding engineering students from various streams and we develop, design and manufacture a formula style car to take part in International Design Competitions organized by Formula SAE, most notably FSG, an acronym for Formula Student Germany.

As we've heard in a famous Hindi Film, "Don't study to be successful, study to be able. Success will have to follow." This is exactly what happened in 2006, when an ambitious bunch of engineering students from our college, set out on this ambitious journey, to defy all odds, break the shackles of this monotonous education system, and make themselves able to compete at the international level. With the right tools in their hands, fire in their hearts, and with a battered rickshaw engine in a cramped workshop, they began their search for success. And the rest is history. Since then, there has been no stopping Orion Racing India. This year the team members have put in all their efforts and hard work on the project to develop our second electric prototype Lemnos. Lemnos was said to be a place of technological marvel in Greek mythology surrounding Orion, where the latest and greatest in innovation was centered. Our car was designed to pay tribute to this city of technology.



Technical Data				
Engine	Emrax 228 MV	Differential	Drexler LSD	
ECU	Myrio 1900D	Energy Cap.	7.2 kWhr	
Wheels	Hoosier R25B	Dimensions	1540 WB/ 1200 Track	
Suspension	Z Type ARB	Weight	225 kg without Driver	
Fuel	Sparks and Charges	Frame type	Tubular Spaceframe	
Wings	Full Aerodynamic Package	Racecar	Looks Awesome	



Slovak University of Technology in Bratislava **STUBA Green Team**





Enjoy the ride, while it lasts...

STUBA Green Team is the only Formula Student team in Slovakia. It consists of 35 students of the Slovak University of Technology in Bratislava with the passion for motorsport and innovations. Our team was founded in 2009 and since then we designed and manufactured 9 electric vehicles with SGT-FE22 as our newest darling.





TECHNICAL DATA

Engine	4 cats
ECU	Samuel's brain
Wheels	Some rubber
Suspension	No porpoising
Fuel	Beer
Wings	by Red Bull
Max. Power	80 kW
Torque	Unlimited
Weight	Yes
Frame	Monoco*k



Universität Siegen Speeding Scientists Siegen e.V.





Rheinisch-Westfälische Technische Hochschule Aachen

Ecurie Aix Formula Student Team RWTH Aachen e.V.

The eax01 is the first vehicle in the 23-year history of the team from RWTH Aachen University that combines the performance of an easy-to drive, lightweight and highly aerodynamically optimized EV-class vehicle with the technology and functionality necessary to perform autonomously at the very mechanical limit of the car. Given the seamless integration of all autonomous components you will not be able to spot them at FSA though.

Engine	PMSM with watercooling
ECU	Teensy microcontroller
Wheels	Eight
Suspension	Everything self-made
Fuel	Red Bull
Wings	All of them
Weight	No one really knows – but light
Frame type	CFRP Sandwich Monocoque
Driver	Lutz Motorsport
Best Feature	It's actually finished







Powerful ideas come from fresh perspectives.

You bring the next generation of innovation thinking. You want to work for an entire industry. You are ready to change the world. We have student opportunities from cooperation programs with universities, internships, working students, final thesis and entry level jobs.

Let's create a better future, together. Forward. For all.



Apply now! Imagine limitless opportunities with us.



#MagnaNextGen