



newsletter

March 2022



MEET THE TEAM

e-Tech Racing is a team made up of 42 students from the Escola d'Enginyeria de Barcelona Est (EEBE), a school included in the Diagonal-Besós Campus of the Universitat Politècnica de Catalunya (UPC).

Our mission is to develop a high-performance **electric single-seater** style car to compete in different international tests of the Formula Student contest. In this new edition of the newsletter you will find all the information about this season's competitions.

Despite the competitive fact, the mission of this project is to develop the personal skills of the students within a context of maximum demand and establish strong links with leading companies in the sector in order to obtain versatile professionals who have a job insertion as quickly and successfully as possible.



THE CARS



E79

2013-14



WILL-E

2014-15



EV-A

2015-16



ROMEO

2018-19



JULIET

2017-18



STEV-E

2016-17



E-MILI

2020-21

ITALY

autodromo di
varano <



PARMA

FROM 13/7
TO 17/7*

*dd/mm/yyyy

SPAIN

montmeló <



BARCELONA

**FROM 29/8
TO 4/9***

*dd/mm/yyyy

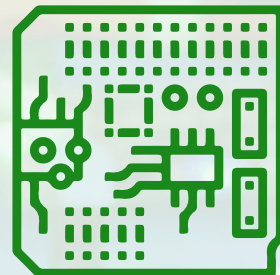
CROWDFUNDING

On April 1, 2022, we launch the 3rd edition of Crowdfunding through the digital platform Verkami, called **Drive with Us**. We present new and exclusive designs related to e-Tech Racing and that can be obtained by acquiring Tiers. The rewards for contributing to the team vary depending on the amount invested. Some of the rewards include a postcard, bracelet, cloth bag, mug, t-shirt, sweatshirts... Among the most exclusive rewards are a miniature 3D printed model and attending to a test day.



TECHNICAL INFO

The electronics department is improving the PCBs both in reliability and compatibility for future vehicles, as well as designing new boxes for mounting in the car.

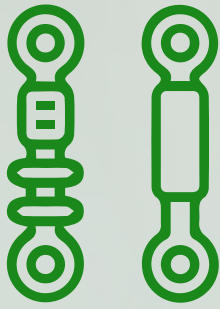


A power control is being developed to protect the battery, along with the development of the new battery concept with cylindrical cells.

We already have the engine repaired by Vernis and we are fine-tuning its configuration.



We have started the hard work of developing and manufacturing aerodynamic components in order to optimize last season's package.

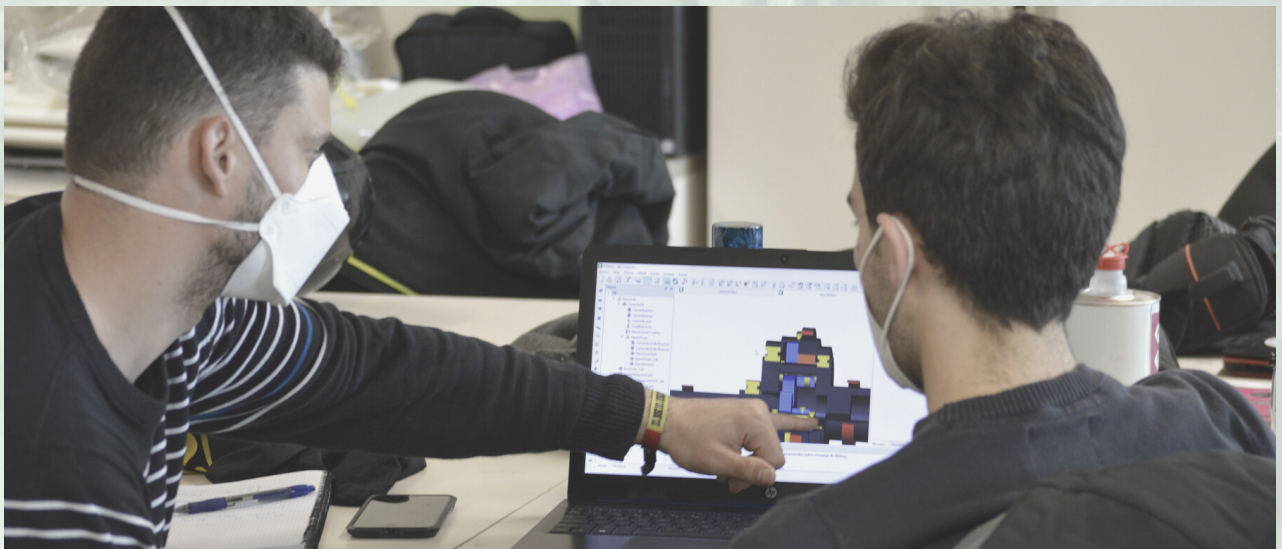


Suspensions has been working to improve the dynamic response and the manufacturing of the system.

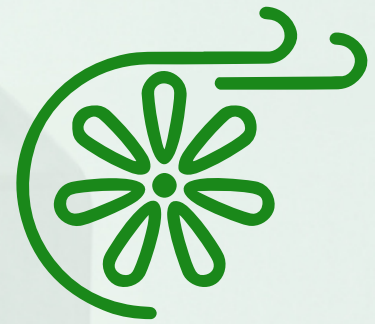
The transmission department is designing a new reducer to implement wheel motors.



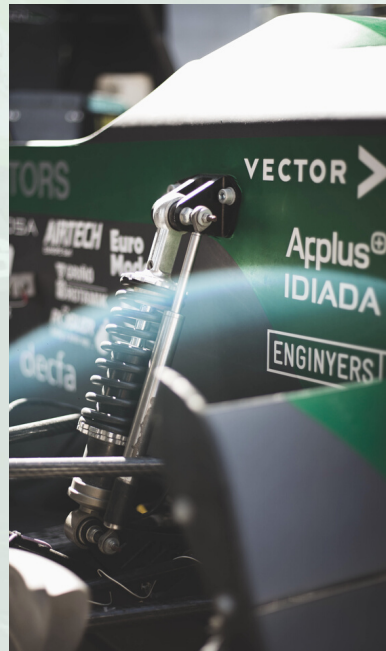
Brakes&Wheels is designing a new pedal board, in addition to the spindle for the wheel motor.



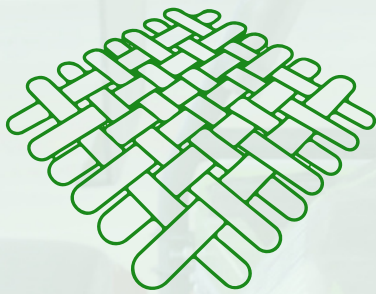
Cooling is working on the thermal management of the new battery design, in addition to studying a water jacket for the wheel motor.



The VDC department has been implementing improvements to the torque vectoring algorithm, as well as modeling the weight distribution and dynamic behavior of the car.



Body has been in charge of completing the SES, which has involved the design and manufacture of specimens that represent different areas of the monocoque and carrying out three point bending (3PB) and shear tests.



Composites has been researching how to optimize the process related to the parameterization of carbon fiber to the maximum and is making progress with respect to the manufacturing process of test specimens, with which it is expected that in the tensile and compression tests the results will be obtained with a minimal error.



WM MOTORS VERNIS



CSUC

Gurit

aluNID



INTECH3D



MADA



KISSSOFT

CIMWORKS
LUTON GROUP

TalleresCRIDI



CITCEA



Applus⁺
laboratories

SIEMENS



EDAG

SCHAEFFLER boloberry SBG SYSTEMS Capgemini engineering

JOAN BONASTRE, S.A.
ENGINEERING AND ADVANCED MANUFACTURING



FICOSA

WE
WÜRTH ELEKTRONIK



GRUPO BÉTULO

CORE MATERIALS

ceys

RECOM

AFV Inicia

ENGINYERS BCN



BTEC

TORMETAL

Applus⁺
IDIADA

muRata

GEDORE

Enginyers
Industrials de Catalunya



Global
Composite

JLCPCB

PRONAT
INDUSTRIES

Clip

SERMEC

HYUNDAI
POWER PRODUCTS

GO-RACE

CG

ATOM

SHIBUYA

DELTA

isovolt

TECNITALL

coemmo

GEDORE

molex

Sensata
Technologies

GJM

MECakim

Stf

ELEGCO

STARCKE
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KTR

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NEXUS
PROJECTS

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GURAO
CURVADOS S.L.

BENDER

igus

NG
Brake Disc

KTR

GS

IPG
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Kevin Martínez
Pau Marzo

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Marc Casas
Nil Rosales
Marc Ventura

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