

# **European Rocketry Challenge Project Presentation**



## **EUROPEAN ROCKETRY CHALLENGE 2021**

When: 12th to 17th October 2021 Where: Ponte de Sor, Portugal

The European Rocketry Challenge (EuRoC) is a rocket-building championship for university students.

Our mission is to launch a rocket to a precise altitude of 10,000 ft before being safely recovered with parachutes.

As part of the competition, rockets must carry a payload of 4kg in a standard 3U CubeSat format.

## PAYLOAD & STEM OUTREACH

We are committed to engaging with the next generations:

We challenge schools to design and build experiments that will fly inside our rocket!





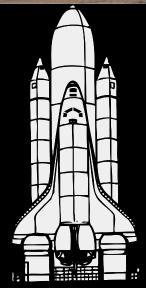
#### **WHO WE ARE**

A TEAM OF 27 POSTGRADUATE STUDENTS FROM

**CRANFIELD UNIVERSITY** 







### AN INTERNATIONAL TEAM 13 Nationalities





#### **VARIOUS FIELD OF STUDY**

Astronautics and Space Engineering

**Aerospace Vehicle Design** 

**Aerospace Dynamics** 

**Aerospace Materials** 

**Aerospace Manufacturing** 

Advanced Lightweight and Composite Structures

**Automotive Mechatronics** 







## A STRONG TECHNICAL BACKGROUND



RC aircrafts

Spaceport America Cup

Formula Student

Hybrid Engine

Water-rockets

Solid rocket motor

C'Space









### Ziggy rocket Spaceport America Cup 2019

Propulsion: Solid Apogee: 10k ft Recovery: Failed

Experience: Exceptional





3...

2...

1...

Ignition & Take-off!









#### **CONTINUOUS IMPROVEMENT**

We want to equip our rockets with sensors to get feedback on the flight data. This will allow us to develop our understanding and improve our design & methods.

#### **FLIGHT TESTS**

During the development of our rocket for the EuRoC, we will launch smaller models in the United Kingdom to test, validate and improve our sub-systems.

#### **COMPETITION ROCKET**

Your support will allow us to equip our rocket with reliable components that are needed to achieve our mission.







£5000

Platinum Gold, plus:

- Prominent logo position on our Rocket
- Invitation to campus
- Flying Experience above Cranfield
- Wide-scale model of our rocket (50 cm)



£2500

Gold

Silver, plus:

- Notable logo position on the Rocket
- Logo on team competition/event merchandising
- Large scale model of our rocket (30 cm)



£1000

Silver

Bronze, plus:

- Logo on hardware or project publicity
- Logo on website
- Medium-scale model of our rocket (20 cm)



£500

**Bronze** 

- Social media marketing
- Logo on CranSEDS merchandise
- Small scale model of our rocket (10 cm)

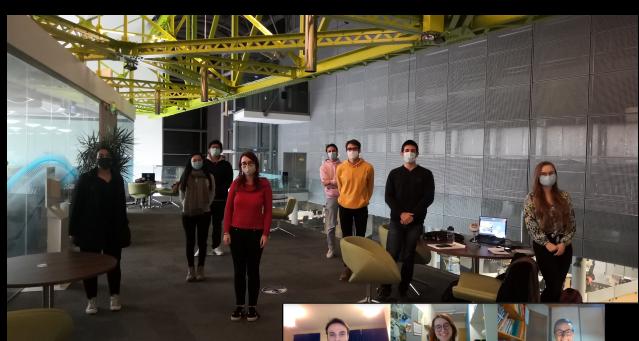
Donation of pieces of hardware are equivalent to direct funding.

#### **THANK YOU**



Being a part of the CranSEDS team branding will provide a targeted promotion to an extensive base of young engineers, academics, and members of the industry at an international level. Cranfield University has a long and proud history in the field of aerospace engineering in the UK and is highly regarded globally within this field. This makes Cranfield University the UK's top destination for aerospace engineering postgraduate students and the largest provider of accredited aerospace master's degrees. With 200 doctoral students and 400 MSc aerospace postgraduate students drawn from universities around the world.

Your help will be devoted to the continuation of the project's development. We will utilise the resources that you will provide to support; technical knowledge and understanding, vital material acquisition and supply, as well as an added motivation and incentive for the project. Your help will go towards helping these enthusiastic students turn their passion into a reality. Thank you!





#### CONTACT



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### **CranSEDS**





LinkedIn Instagram http://cranseds.co.uk/

