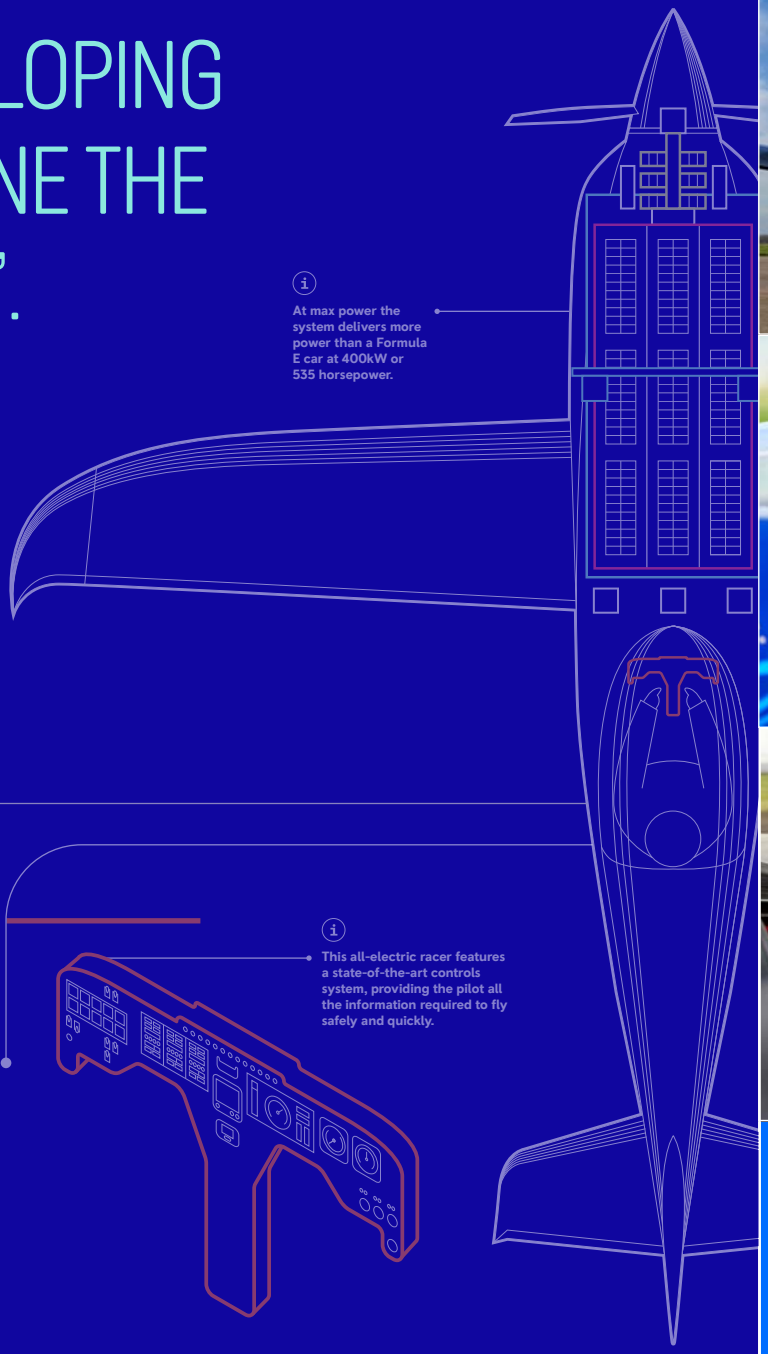
# ROLLS-ROYCE IS DEVELOPING AN ALL-ELECTRIC PLANE THE ‘SPIRIT OF INNOVATION’.

## LATER THIS YEAR WE WILL BE AIMING FOR THE RECORD BOOKS WITH A TARGET SPEED OF 300+ MPH.

Spirit of Innovation




### WHO ARE ROLLS-ROYCE?

Rolls-Royce is a global industrial technology company that pioneers cutting-edge technologies that deliver clean, safe and competitive solutions to meet our planet’s vital power needs. We have three main business areas: Civil Aerospace, Defence and Power Systems. For more information see **www.rolls-royce.com**



ROLLS ROYCE

# ROLLS-ROYCE AND ACCEL

## ROLLS-ROYCE IS DEVELOPING AN ALL-ELECTRIC PLANE THAT WILL BE AIMING FOR THE RECORD BOOKS WITH A TARGET SPEED OF 300+ MPH (480+ KMH). THE PLANE IS CALLED 'SPIRIT OF INNOVATION'.

## THE ACCEL PROGRAMME IS SHORT FOR ACCELERATING THE ELECTRIFICATION OF FLIGHT.

This is just one of the ways that Rolls-Royce is pioneering cleaner, sustainable aviation and inspiring tomorrow's scientists and engineers.

Electrification of flight is an important part of our strategy as Rolls-Royce aim for net zero carbon by 2050. Rolls-Royce will be using tech from this project for other products too.

ACCEL has only been made possible through strong partnership with aviation energy storage specialist Electroflight and electric motor and controllers providers YASA.

Half of the funding for this project is provided by the Aerospace Technology Institute (ATI), in partnership with the Department for Business, Energy and Industrial Strategy and Innovate UK.

## FACT FILE

**+ Rolls-Royce Net Zero Ambition**

Science tells us we must curb global temperature rise to 1.5°C to avoid the worst impacts of climate change. We have committed to ensure our operations and facilities target net zero emissions and the products and technologies we are proud to pioneer can be used in a way that generates net zero emissions by 2050.

**+ Our Sustainable Focus**

We've taken steps already and tested 100% sustainable aviation fuels in our aircraft engines in Derby and we've signed up to provide electric propulsion for flying taxis and regional aircraft that will fly in the next few years. Our 'Spirit of Innovation' all-electric test aircraft and the ACCEL project shows what can be achieved when industry and Government work closely together.

**+ Electrification of Aerospace**

This is why electrification is so important right now:

- Electric flight is now technically and financially possible
- It means that aircraft design and operation can be made more efficient and waste can be reduced
- It allows us to create different transport solutions that are quieter and more accessible.

**+ The ACCEL Challenge**

Rolls-Royce is leading an exciting challenge to build the world's fastest all-electric aircraft. Our zero-emission 'Spirit of Innovation' is making a run for the record books with a target speed of 300+ MPH later this year. Earlier this year the plane powered along a runway for the first time and then successfully achieved first flight. Rolls-Royce are now working to optimise testing and performance ready for achieving the target to break the world air speed record.

## FURTHER INFORMATION

Rolls-Royce ACCEL: **www.rolls-royce.com/ACCEL**
Rolls-Royce Pathway to Net Zero: **www.rolls-royce.com/innovation/net-zero#**
Rolls-Royce STEM Stories: **careers.rolls-royce.com/united-kingdom/stem#stem-stories**
Rolls-Royce Graduate and intern programmes: **careers.rolls-royce.com/students-and-graduates/graduates-and-interns**
Rolls-Royce Apprenticeship programmes: **careers.rolls-royce.com/students-and-graduates/apprenticeships-and-school-leavers**

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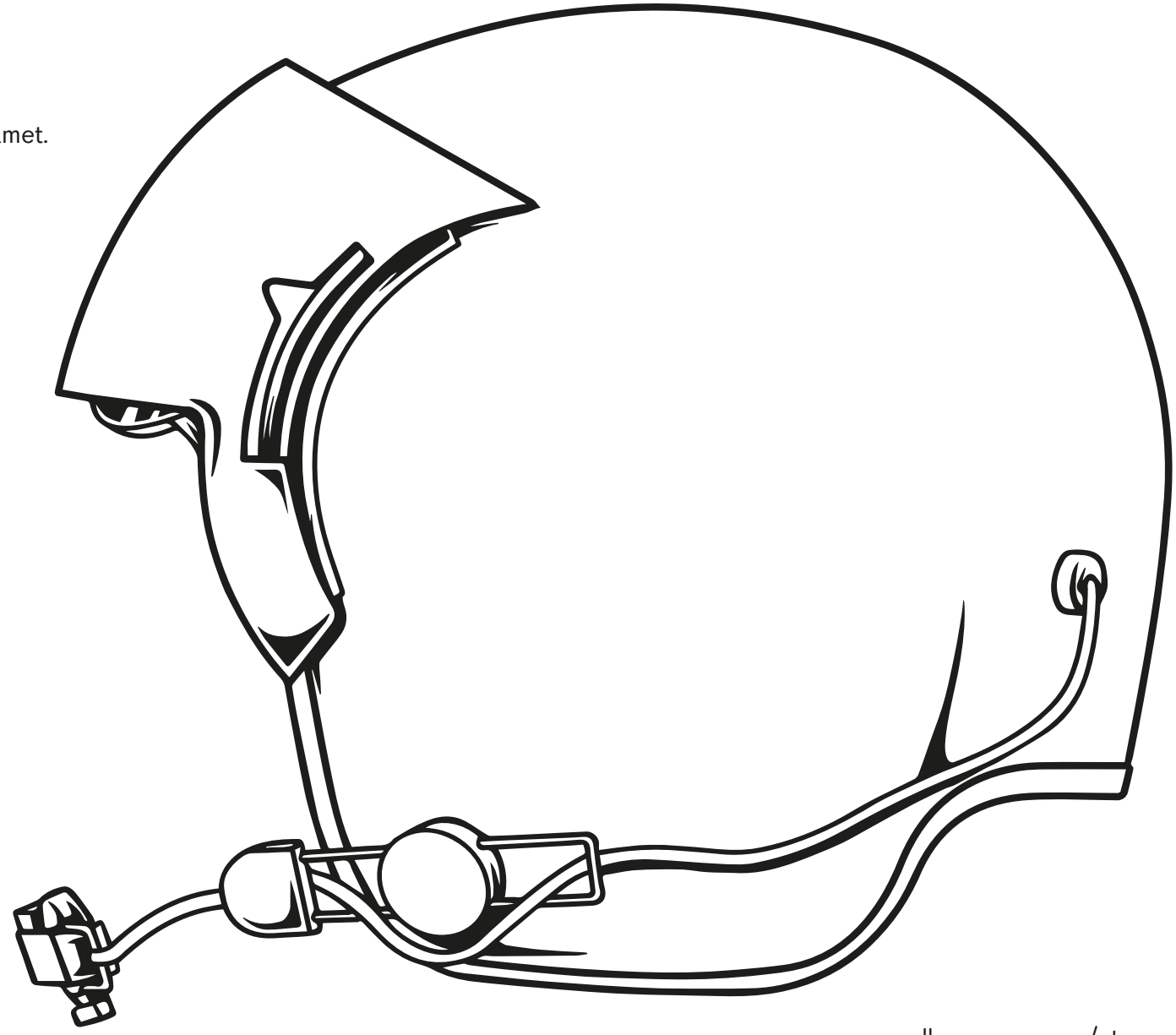
# HELMET DESIGN ACTIVITY

Earlier this year we ran a very successful competition for children to design Phill's helmet.

You can use this template to draw your own design – can you think up a design that represents the future of electric flight?



www.rolls-royce.com/stem

A RUN FOR THE RECORD BOOKS

# Electrifying Flight

Rolls-Royce is leading a highly specialised challenge to build the world's fastest all-electric aircraft. Our zero-emission 'Spirit of Innovation' aircraft is expected to make a run for the record books with a target speed of 300+ MPH later this year.

Here's a look at the great innovation in our record breaking aircraft.

| | |
|---|---|
| Aircraft name | **Spirit of Innovation** |
| Max power | **400kW** |
| Top speed | **300+ MPH** |
| CO2e | **Net Zero** |
| Weight of plane plus Phill the pilot | **1250KG** |

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