

# PROJECT SNAPSHOT



## High-T Hall Sensor Platform

Developing a supply chain for high-temperature operation Hall sensors which can sense high-frequency switching for electric motors and drives, using an innovative Hall graphene sensor

5 PARTNERS



34 JOBS CREATED/ SAFEGUARDED



TEST & RELIABILITY



Partners:

Paragraf, CSA Catapult, Rolls-Royce, TT Semelab and TT AeroStanrew

## CSA CATAPULT ROLE

SENSOR TEST PLATFORM | TEST & RELIABILITY



By using graphene and the robustness of the material, a completely new breed of sensor and product will be developed which can withstand high-temperature operation, suitable for electric drives and motors.

**Aim:** The aim of project High-T Hall is to demonstrate an integrated UK supply chain solution for advanced Hall sensing within power electronics machines and drives (PEMD). This will address the issues PEMD's experience when switching frequencies across a broad range of temperature conditions.

- Improving current state-of-the-art technology by simplifying processing procedure, allowing for increased, predictable and stable temperature ranges
- First time in the world to use cutting-edge science to grow large-area graphene directly on existing wafers
- Additional investment over the coming years includes Paragraf: £25M by Aug 2021, Rolls Royce £18M between 2020-22 and TT: £600K by Apr 2022

## PROJECT BENEFITS



A supply chain will be created, geared up to support harsh environment PEMD systems



Graphene to help solve many issues in different electronic devices



The project is taking a disruptive approach by using graphene to replace silicon in Hall sensor devices