

Design and Development for Quadcopter

Technical Demonstrator – In House

Challenge

- Construction of a light-weight Quadcopter structure capable of carrying a payload up to 5 kg with the ability to fly in manual and autonomous mode
- Required rapid prototype deployment to meet time-sensitivity of the project

Solution

- Construction of Quadcopter using aluminum as base metal.
- Optimized design and development methodology created for rapid prototype deployment

Scope

- Design and Development of a Light weight-high strength Quadcopter with optimized performance and high payload capacity
- Verification and validation for performance.

Impact

- Significant reduction in structural weight when compared to quadcopter structures built using conventional materials
- Quadcopter with an endurance of 25-30 mins (under ideal conditions)
- Payload Capacity – 5 kg
- Sturdy structure capable of withstanding loads up to 5g

