TRICOPTER - Course Content

Phase 1: Theoretical Session

- Design, Fabricate and Test your own Tricopter
- Concepts of Aeromodelling and Aerospace Engineering
- Realization of Flight Electronics
- RC Aircraft Design Procedure
- Explore to the art of Fabrication
- Hands-on experience to Modern day manufacturing Techniques
- Learn how to fly RC Aircraft professionally

Phase 2: Design Session

- Fundamentals of Rotor Dynamics.
- Various components of a Tricopter.
- Stability and Control of a Tricopter.
- Introduction to Tricopter Design.
- Basics of PID tuning.
- Introduction to Electronics and Sensor calibration.

Phase 3: Software Evaluation

- Explore how to do a setup for Autopilot and upload firmware.
- Systematic procedure of electronics setup (ESC, Receiver and Sensor calibration)

Phase 4: Virtual Flight Training

- Professional Flight lessons from TechEagle Pilots
- Experience the thrill of flying an RC Tricopter in a Flight Simulator
- Flight tips from licensed pilots of Wingfotec

Phase 5: Fabrication Session

- Learn best manufacturing techniques by experienced Mentors.
- Hands-on experience of assembling a Tricopter.
- Electronics Integration and Hardware setup.
- Making your RC Tricopter RTF (Ready to Fly) - Weight Balance, Pre Flight Checks.

Phase 6: Flying Session

Experience the fun of your RC-TriCopter Flight

- Get an FPV video of your TriCopter
- Safety Precaution while conducting Flying Session
- Pre-flight Checks and In-flight tips from the Licensed Pilots

Topics Covered

- Understanding rotary-wing aircraft and their Dynamics
- Learning about different components in a Tricopter
- Introduction on autopilot and GPS systems
- Understanding the concepts of Embedded Systems behind Multicopters