

Tri-Copter UAV

The Workshop has been designed by engineers and professional hobbyists with over four years of experience in the field. Our team consists of engineers from Aerospace, Mechanical, Electrical and chemical Engineering. The workshop will house three sessions - Design, Manufacturing, and Flying spanning over 1 day at your own college. The main target of the workshop is to establish the base which will help you to independently design, build and fly a Tricopter. The course will give an introduction to basic concepts of Aerospace Engineering like control and stability of Tricopter along with the introduction to rotor dynamics. The participants will be able to take part in national and international technical festivals. The following are the highlights of what these sessions will majorly cover:

Design Session

- Application based Designs of Tricopter
- Various components of a Tricopter
- Fundamentals of Rotor Dynamics
- Stability and Control of a Tricopter
- Autopilot Control and PID Tuning
- Introduction to Electronics and Sensor calibration

Manufacturing and Assembly Session

- Learn best manufacturing techniques by experienced Mentors
- Hands-on experience of assembling a Tricopter.
- Electronics Integration and Hardware Setup
- Getting your Tricopter ready to fly (Weight Balance, Pre Flight Checks)

Electronics and Hardware Setup

- Explore how to do a setup for Autopilot and upload firmware
- Learn an efficient way to tune the Tricopter by PID Algorithm
- Algorithm implementation using Sensor and Manual input

Virtual Flight Training

- Professional Flight lessons from TechEagle Pilots
- Experience the thrill of flying a Copter in a Flight Simulator
- Flight tips from licensed pilots of TechEagle

Flying Session

- Tune the Tricopter according to our Model Configuration
- Pre-flight Checks and In-flight tips from the Licensed Pilots
- Get an FPV Video from your own Tricopter

Kit:

The kit focuses on affordability without compromise on Workshop Experience. Electronics will be provided only for the flight. The kit will contain the following items:

- Transmitter*
- Receiver*
- Tricopter Frame parts 6
- LED light kits
- Workshop Manual, PID Tuning Manual.

Each Team consists of a maximum of 5 members

*Kit will not include batteries, Transmitter, Receiver. Although you will provided these for the flying session.