



Over the past year we have seen unmanned air vehicles i.e. drones become more relevant to people's lives. The technology has matured, and is servicing to diversified applications. Practical knowledge of electronic and avionics system of drone for any learner to build a career is a must. Understanding this need 0001 has developed a FCB and ESC Training Platform which is a subset of 0001 Drone solutions. It is a Drone Emulator which includes all functional working blocks of drone. It is an ideal platform for any learner who would like to know the complete insight of electronic and avionics system of drone technology. The Provision for interconnections helps learner to perform practical's on different functional blocks of a drone system. Learner can also perform the complete working principle of BLDC motors and its Electronic Speed Controllers i.e. ESC section. The training platform works in dual operating modes i.e. AC Mains and Battery mode.

### Features

- 01 Advance 8-bit or more Micro processor
- 02 Multiple PWM/servo output.
- 03 Brushless ESC: Highly intelligent, adaptive ability, extremely easy to use.
- 04 Bus interface (UART, 12C, SPI) and Provide redundant power input and failover.
- 05 The integrated backup power supply
- 06 Camera Interface
- 07 Motor tester interface
- 08 Multiple test points for signal.
- 09 Battery Charging interface
- 10 LIDAR sensor interface
- 11 Safety switch
- 12 Multiple working power modes (Battery/Mains)

### Experiments

- 01 Drone Safety Precautions
- 02 Drone basics and anatomy
- 03 Standard Operating Procedure (SOP) for the training platform

Note: Specifications are subject to change.

- 04 Software integration using mission planner ESC Calibration
- 05 Pre-arm Safety Check
- 06 Arming and Disarming of Drone
- 07 Motor & ESC testing using motor tester
- 08 PWM signal visualization on DSO
- 09 LIDAR sensor interfacing
- 10 Camera interfacing
- 11 GPS interfacing
- 12 Battery Charging
- 13 Controlling the training platform using RC

### Technical Specifications

- 01 UART (Serial Ports)
- 02 12C, SPI, ADC Inputs
- 03 Battery 8000mAH
- 04 Flight controller
- 05 2600kv Brushless Motor with soldered connector 4
- 06 5" Propellers
- 07 30A BLDC Electronic Speed Controller
- 08 USB Port
- 09 Multicolor LED lights
- 10 Provide multi-tone buzzer Interface

### List of Accessories

- 01 FRC Interfacing Cable-----14 nos.
- 02 Patch cords short 10mm Red----- 6 nos.
- 03 Patch Cords long 10mm Red----- 2 nos.
- 04 USB Cable A to B type-----1no.
- 05 Training Platform Power cords----- 2 nos.
- 06 GPS Module with stand-----1no.
- 07 Propellers----- 4 nos.
- 08 Propeller Mounts-----4 nos..
- 09 RC Controller-----1 no.
- 10 Alkaline Cell for RC Controller----- 8 nos.
- 11 RC Binding Key----- 1 no.
- 12 DIN to DIN Battery Charging Cable--- 1no.
- 13 Receiver for Camera-----1no.
- 14 Mains Cord----- 1no.