



# Proposal for Aeromodelling Boot camp: with FPV Drone

## About Us:

SDIoT is the most exclusive, invitation-only, network of high-caliber tech enthusiast who wants to make the mark in the field of Smart Devices and Internet of Things. We lead our tech buddy on their technological transformation, providing innovative next-generation technology solutions and services that leverage deep industry expertise and an extensive partner community.

## Workshop Details

Workshop Name	:	Aeromodelling Boot camp: with FPV Drone
Workshop Duration	:	Two day
Workshop Fee	:	₹ 1250/- per student

## Workshop Highlights

Flying an FPV (first person view) drone is an out of the world experience. It is not much before, when only in movies and video games one can think about drone racing, now a bird's-eye view or race through obstacles at breakneck speeds is a reality. Through this workshop we are bringing this to your fingertips, now you too can wear your flying goggles and enjoy the breathtaking maneuver of drone right in front of your eyes. SDIoT is planning to host a series of workshops throughout India to allow participants to get exposed to all new world of flying motorsport while learning fundamental principles of UAV technology.

## Course Content

The workshop is planned for two consecutive days with the following sessions:

Day-1 Session-1 (Theory)	Day-1 Session-2 (Hands-on)
<ul style="list-style-type: none"> <li>Physics of flying</li> <li>Aeromodeling overview with demo on                             <ul style="list-style-type: none"> <li>Control Surfaces -- Airplane</li> <li>Control Systems -- Drone</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Best practice to build and fly</li> <li>Get familiar with drone parts</li> <li>Their use and functioning</li> <li>Radio controller</li> </ul>
Day-1 Session-3 (Hands-on)	Day-2 Session-4 (Hands-on)
<ul style="list-style-type: none"> <li>Simulator session: Learn how to fly multirotors.</li> <li>Live drone flight demonstration</li> <li>Indoor Flying Experience with Tiny Whoops</li> </ul>	<ul style="list-style-type: none"> <li>Building &amp; flying self-built drone: (Trainer will perform a live drone build)</li> <li>Using IAP to flash firmware on flight controller</li> <li>Spares Integration and Calibration</li> <li>Before flight check-ups</li> </ul>
Day-2 Session-5 (Projects)	Day-2 Session-6 (Wrap-up)
<ul style="list-style-type: none"> <li>Telemetry Radio and RC Transmitter Setup</li> <li>Preparing drone for crash scenarios</li> <li>Best flying practices ( 3-mistakes high)</li> </ul>	<ul style="list-style-type: none"> <li>SDIoT DIY Project Demos</li> <li>Virtual Reality</li> <li>Drone Airshow (With drone built during session) and #SkySelfie for Participants</li> <li>Awards Ceremony</li> </ul>

## Our Pedagogy

Our proposed workshop is based on experiential learning methodology, which involves a series of highly interactive and intense individual and group-based activities. Our relationship with students continues even after the workshop where we offer online and offline technical support to convert their ideas into reality.

Our world @SDIoT revolves around:



## Learning outcomes

This workshop will teach you:

- ⇒ The basic requirement in building and flying a drone
- ⇒ About aerodynamics, electronics, and software associated with a drone.
- ⇒ FPV racing drone and its specific benefits and challenges.

## Attractions

- ⇒ Hands-on simulator session for all participants on IDRL Elite Simulator.
- ⇒ You can see what our drones are seeing while flying.
- ⇒ Live Airshow, SkySelfie, and experience racing drones flying at high speed freestyling and maneuvers.
- ⇒ With us dig into the ever-expanding (and lucrative) commercial side to FPV.

## SDIoT P<sup>4</sup>U Lab:



P<sup>4</sup>U lab is an initiative of SDIoT to inspire Tech-enthusiasts and Entrepreneurs to turn their ideas into new prototypes and products by giving them access to a range of advanced digital manufacturing technology. It began as a common working place of SDIoT members and became a collaborative platform of tech-enthusiast from Delhi NCR. You can find more information about P<sup>4</sup> Lab on the SDIoT Website.

## Recent workshops conducted by us:



@ JRE Gr of Institutions; Gr.  
Noida



@ FET; Jamia Millia Islamia;  
Delhi



@ Salwan Public School,  
Gurgaon

## Caveat and Contact for Correspondence

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