Future Lab

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Drone Academy

FPV DRONE BUILDING INTENSIVE

Course schedule
4–13 December 2026

Day 1 Friday 4 December	**Day 2** Saturday 5 December	**Day 3** Sunday 6 December	**Day 4** Friday 11 December	**Day 5** Saturday 12 December	**Day 6** Sunday 13 December
15:00–16:50 **FPV System Architecture** FPV control principles, system structure, applications	**10:00–11:50** **Flight Dynamics** Thrust vectors, pitch, roll and yaw control, thrust-to-weight ratio	**10:00–11:50** **Communication Systems** ELRS, video system (analog, digital), VTX, antennas, failsafe	**15:00–16:50** **Assembly: Mechanics and Power Circuits** Mounting the frame, motors, stack; soldering motors, battery connector, capacitor	**10:00–11:50** **ESC and FC Firmware** Betaflight, ELRS, EdgeTX; firmware updates; configuration backup (diff all)	**10:00–11:50** **Configuration Check** Motors without propellers, ARM, modes, failsafe; accelerometer calibration; image in goggles
Break 16:50–17:10	**Break 11:50–12:10**	**Break 11:50–12:10**	**Break 16:50–17:10**	**Break 11:50–12:10**	**Break 11:50–12:10**
17:10–19:00 **FPV Drone Design** Unit assemblies on training stands: frame, power system, ESC, FC, receiver, video system **Simulator**	**12:10–14:00** **Power System and Component Selection** Propeller, motor, ESC, battery; thrust and current calculation; takeoff weight, weight distribution; peripherals (GPS, barometer, compass) **Simulator**	**12:10–14:00** **Soldering Technology** Soldering equipment, flux, solder, temperature settings, tinning; soldering wires and connectors on training boards **Simulator**	**17:10–19:00** **Assembly: Control and Video** Connecting FC, receiver, camera, VTX, peripherals; initial check: polarity, short circuits, smoke stopper **Simulator**	**12:10–14:00** **System Configuration** FC, ESC, peripherals; ports, orientation, ELRS bind, channels, modes, failsafe, OSD **Simulator**	**12:10–14:00** **Flights** Pre-flight preparation, flights, fine-tuning **Simulator**

Course fee: **AED 6,000**
No experience required
Certificate of completion issued

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