



National Centre for Physics

Detailed specification Document

Annex-A-195

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S#	Title of the Project	Design and Development of 3D Printed UAV		
		Specification	A/U	QTY
1.	Flight controller	Flight controller (for FPV Drone & Quadcopter) Pixhawk Flight Controller PX42.4.8), smarthobby.pk, Qasim Shigri, (ARTTEC HOBBIES),	-	1
2.	RC transmitter + receiver	RC transmitter + receiver (2.4GHz) Flysky FS-i6X 10CH Transmitter with FS-iA10B i-Bus Receiver , AIIRC.pk, Ubuy.com.pk, Qasim Shigri, (ARTTEC HOBBIES),	-	1
3.	GPS	GPS Module for UAV Drones UBLOX NEO-M8N High Precision GPS Built-in Compass for APM Pixhawk , AIIRC.pk, Qasim Shigri, (ARTTEC HOBBIES),	-	1
4.	Servos	Servos (12V) (Torque Max static 20Kg-cm) Lynxmotion SES-V2 Standard Smart Servo, AIIRC.pk, Ubu.com.pk, smarthobby.pk	-	10
5.	DLE-60 Engine	DLE-60 RC Model Engine (7HP/8500rpm), Qasim Shigri, (ARTTEC HOBBIES),	-	1
6.	Propeller for DLE-60 Engine	DLE-60 Propeller hub 60 smarthobby.pk, Tejar.pk, Qasim Shigri, (ARTTEC HOBBIES),	-	1
7.	Fuel tank	Fuel Bladder Tank 2.5L Rectangular 2.5L 2SQ , Ubuy.com.pk , Qasim Shigri, (ARTTEC HOBBIES),	-	1
8.	Engine starter	UAV Engine Starter (~20 Nm) (Cranking Speed 500 – 2000 RPM) Visionary engine starter , zy hobby.com	-	1
9.	Battery for Avionics	Battery for Avionics (li-ion solid state drone battery, 22Ah)	-	2
10.	Battery connectors + switch	Battery connectors + switch (Lithium Battery Connector (male+female), 40A)	-	5
11.	Antennas (GPS, RC, Telemetry)	Antennas (GPS, RC, Telemetry)	-	3
12.	Fasteners	SmalFasteners(For joining parts of 1.5m FDM Drone)	-	50
13.	Polycarbonate material	Intamsys Polycarbonate material (Spool Dia. 1.75mm)	kg	20
14.	HIP Material	Intamsys HIP material (Spool Dia. 1.75mm)	kg	2
15.	PVDF Material	Ultimaker PVDF Material (Spool Dia. 1.75mm)	kg	2

Note: All the components installed should be compatible with the system and each other.

Please tick the relevant box

☐ Installation

☒ Testing

☐ Commissioning

☐ Training

☐ Warranty requirement Any other please specify