



PUSHPAK Hexacopter

PUSHPAK Hexacopter

Hexacopter is a FULLY AUTONOMOUS Mini Unmanned Multicopter aircraft. It is capable of carrying a 1500 Gram payload. The UAV is electrically powered with a very low dB level. The aircraft is fully autonomous right from Takeoff to Landing. The UAV is made of Aircraft alloy and Carbon Fiber Composites.

Physical Specifications

Size	: 900mm (motor to motor)
Height	: 350mm
Flying Weight	: 6000 Gms
Payload	: 1500 Gms (Maximum without camera and gimbal)
Propulsion	: 500 Watt BLDC Motors @22.2 Volt X 6
Propellers	: 15x5.5 carbon fiber x 6
Flying Battery	: Lithium-Poly 22.2 Volt, 12000mAh

Flying Characteristics

Range	: 2.0 Km*
Endurance	: 20 Mins + 2 Mins reserve for failsafe
Accuracy	: Within 3 meters of programmed waypoint
Cruise Speed	: 24 Km/Hr
Max Speed	: 30 Km/Hr
Max Wind	: 20 Km/Hr
Altitude Optimum	: 200 Meters AGL
Altitude (AGL)	: 1000 Meters
Altitude Ceiling	: 3000 Meters
*Total Distance Travelled: 2.0Km +2.0Km = 4 Km	

Capabilities

- Fully Autonomous from Takeoff to Landing
- Can be programmed for 300 Waypoints
- Can Loiter over the subject at any waypoint
- Has Manual over ride at any stage
- Can be 'Guided' to specific location during flight by clicking over map
- Can activate/deactivate any payload from the GCS
- Auto payload activation on reaching the waypoint
- Failsafe built in. Will 'RTL' if link is lost
- Will 'Land' if battery is low
- Payload release mechanism in auto and manual mode
- Auto Payload Release Mechanism

Standard Package

- Curiosity Aircraft 1 Nos
- GCS consisting of windows based laptop and Video Monitor
- Helical Video Antenna
- Clover Leaf Video Antenna
- Auto Antenna Tracker (optional)
- Yagi Antenna for Data Link
- Microprocessor based battery Charger
- Radio Control Transmitter
- Mini Tool Kit
- Aluminum Packing Case
- Video Packing Box

Radio Control Link

Encoding	: PPM
Modulation	: FHSS
Freq Band	: 400-455 Mhz
Max Rf Output	: 2000mW Max
Channels	: 8
Range	: 4.0 Km (when airborne)
Display	: Back-Lit LCD panel on Tx
Battery	: Li-Poly 11.1V, 2650 mAh (12 Hrs continuous operation)

Autopilot

- Main Processor: Broadcom BCM2836 ARMv7 @ 900Mhz running on Linux OS
- MPU9250, 9-Axis Gyro, LSM9DS1, 9-Axis Gyro +Accelerometer
- uBlox GPS with positioning from GPSS, GLONSS, Galelio, Biedu
- HMC5883L 3-Axis Dual Magnetometer (Dual)
- MS5611 High Resolution Barometer
- Onboard Micro SD card for Flight Data Logging
- Inbuilt Wi-Fi Communication

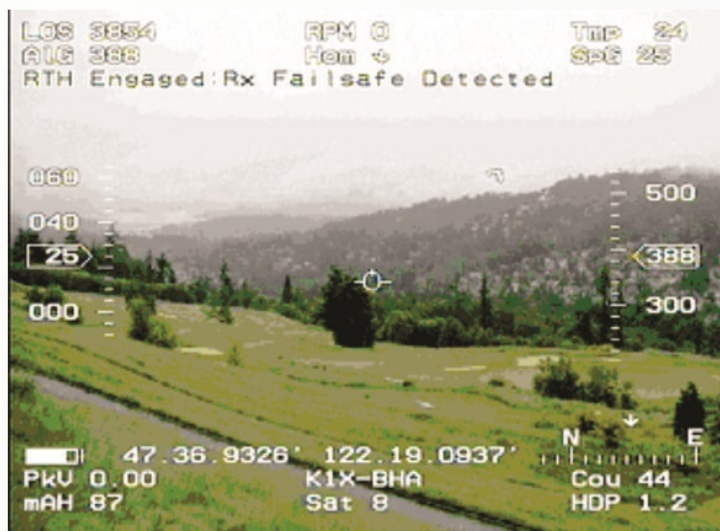
Onboard Video Recorder

- 32GB onboard micro SD card recorder. H.264 compression. *.avi format



Datalink

Output Power : 1000mW (Configurable)
 Modulation Type : FHSS
 Chipset : HopeRF HM-TRP Radio Module
 Freq Band : 900 Mhz (885-915 Mhz)
 Baud Rate : 19,200kbps (Selectable)
 Range : 4 Km (with Yagi Antenna)



Video Link

- Type: Analog Video and Audio
- Rf Power: 600mW
- Frequency: 5.8 Ghz, 40 Channels
- Power Consumption: 300mA @11.1 V
- Video Resolution: 520x420 TVL
- Camera Mount: High Accuracy Gyro Stabilization on Roll and Pitch Axis
- Recording: Onboard recording on 32 GB SD card in *.avi format
- Helical High Gain Antenna. (Circularly Polarized)

Camera Gimbal

- Gyro Stabilized on Roll and Pitch Axis. Microprocessor based. Correction rate of 2000 deg/sec. Common Gimbal for all cameras mentioned in the camera options list. Cameras are changeable in the field within Five Minutes

Payload Options

- Option 1: Color video/still HD camera with onboard HD video recording on 32 GB memory at 1280x720 pixels and AV out of 640x480 pixels. Can be programmed for still images with preset time interval. Max Video HD resolution of 2700 x 2000 pixels
- Option 2: Day Light/Low Light, 10x zoom color camera. Zoom controllable from the GCS, Radio Control with onboard HD (1280x720) recording in *.mov format
- Option 3: Thermal Camera (uncooled) 320x240 Res and 40deg FOV (Selectable) with athermal lens in built recording
- Option 4: Thermal Camera (uncooled) 640x480 Res and 40 Deg FOV (selectable) with athermal lens, Inbuilt recording





PUSHPAK Hexacopter



Our other products...



Baaz Mini UAV



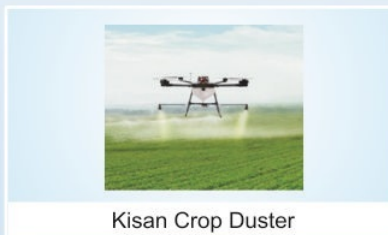
Guardian Civilian UAV



Guardian- Trainer



Surveyor-I



Kisan Crop Duster



Solo Multicopter



Curiosity Quadcopter UAV



Curiosity Plus Quadcopter UAV



Kasper Autonomous 4WD Rover

OM UAV Systems

60-UA, Jawahar Nagar, Delhi 110 007, India
sales@omuavsystems.com, www.omuavsystems.com,
 Contact: Ravindra Singh, Mob.: +91 9810442574