

## **TECHNICAL DATA FOR:**

### **DRAGANFLYER X6 HELICOPTER**

The Draganflyer X6 is a remotely operated, unmanned, miniature, vertical take off and land, aircraft designed to carry wireless video cameras and still cameras.

#### **Helicopter Size**

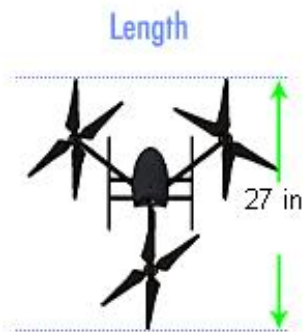
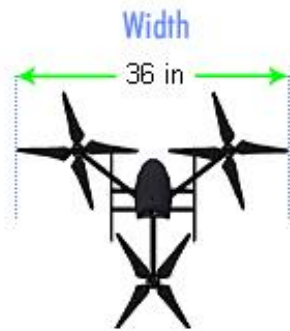
##### Dimensions

Width: 91cm (36in)

Height: 25.4cm (10in)

Length: 85cm (33in)

Top Diameter: 99cm (39in)



### **Weight & Payload:**

Helicopter Weight: 35oz (1,000g)

Payload Capability: 18oz (600g)

Maximum Gross Take-Off Weight: 53oz (1,500g)

### **Materials:**

Carbon Fiber

Glass Filled Injected Nylon

Aluminum & Stainless Steel Fasteners

RoHS Compliant

### **Landing Gear:**

Installed Height: 7in (18cm)

Stance Width: 12in (30cm)

Skid Length: 12in (30cm)

Landing Gear Material: Molded Carbon Fiber

**Rotor Blades:**

Three Counter-Rotating Pairs (Six Rotors Total)

Rotor Blade Material: Molded Carbon Fiber

Upper Rotor Diameter: 16in (40cm)

Lower Rotor Diameter: 15in (38cm)

Upper Rotor Weight: 0.42oz (12g)

Lower Rotor Weight: 0.38oz (11g)

**Position Navigation Lights:**

Type: 1 Watt LED Variable Brightness Emitters

Luminous Flux at Full Brightness: 40lm

Purpose: Helicopter Orientation Confirmation

Visible Condition Range: Full Darkness to Direct Sunlight

Standard Aircraft Colors

Red: Left

Green: Right

White: Tail/Rear

**Electric Motors:**

Brushless Motors: 6

Configuration: Direct Drive (One Motor per Rotor)

Safety Features: Stall Protection

Ball Bearing: 2 per Motor

Rotor Mounting Points: Integrated

Nominal Current Draw Per Motor: 1.04 Amps

Nominal Power / Motor: 15.4 Watts

Nominal Total Helicopter Motor Power: 92.4 Watts

Peak Total Helicopter Motor Power: 450 Watts

Motor Speed at Hover: 2000 RPM

Voltage: 14.8V nominal

Weight: 1.34oz (38g)

**Operating Requirements:**

Operating Temperature: 14° to 104°F (-10° to 40°C)

Relative Humidity: 0% to 90% Noncondensing

Maximum Windspeed: 18mph (30km/h)

**Flight Characteristics:**

Climb Rate: 6.5ft/s (2m/s)

Descent Rate: 6.5ft/s (2m/s)

Turn Rate: 90°/second

Cruise Speed: 6mph (10km/h)

Maximum Speed: 30mph (50km/h)

Minimum Speed: 0mph (0km/h)

Launch Type: VTOL (Vertical Take Off and Landing)

Maximum Altitude ASL: 8,000ft (2438m)

Maximum Flight Time: 25 minutes

**11 Onboard Sensors:**

3 Solid State MEMS (Micro-Electro-Mechanical Systems) Gyros

3 Solid State MEMS (Micro-Electro-Mechanical Systems) Accelerometers

3 Magnetometers (Magnetoresistive Sensors)

1 Barometric Pressure Sensor

1 GPS Receiver

GPS Battery Backup: 75mAh Lithium Polymer

**GPS:**

GPS Used For: Position Hold, Location & Velocity Data

Maximum Satellites Tracked Simultaneously: 16

Position Update Rate: 4 Hz

GPS Antenna: Ceramic Patch

Battery Backup: Lithium Polymer

**Black Box Data Recorder:**

Flight Data Recording: On-Board

Stored To: Removable 2Gb MicroSD Memory Card

Data Recorded: Onboard Sensor Flight Data (Link quality, Orientation, Altitude, Speed, Direction)

## **RF Communications:**

### **2.4GHz Data Link**

Link Type: Helicopter to Ground & Ground to Helicopter (Two-Way)

Helicopter Antenna: Wired Whip Antenna

Controller Antenna: Omni-Directional

Transmission Power (North America): 100mW (+20dBm)

Transmission Power (International): 10mW (+10dBm)

RF Data Rate: 250kbps

Receiver sensitivity: -100dBm

Transmission Technique: DSSS (Direct Sequence Spread Spectrum)

Frequency band: 2.4000 - 2.4835 GHz

Certifications: CE, FCC, IC, ETSI

Data Link Channel Selection: Automatic (12 Channels)

### **5.8GHz Video Link**

Link Type: Helicopter to Ground (One-Way)

Transmitter Antenna: Omni-Directional

Receiver Antennas: Omni-Directional & Flat Patch

Transmission Power: 12dBm

Transmitter Power Consumption: 500mW

NTSC and PAL Compatible

7 Selectable Channels: 5740MHz, 5760MHz, 5780MHz, 5800MHz, 5820MHz, 5840MHz, 5860MHz

## **Rechargeable Helicopter Battery:**

Cell Chemistry: Lithium Polymer

Voltage: 14.8V nominal

Capacity: 2600mAh

Cell Configuration 4s2p (4-series 2-parallel)

Connectors: Integrated Balance and Power

Recharge Time: 30 minutes (after typical flight)

Length: 2.9in (7.5cm)

Width: 2.6in (6.7cm)

Height: 1.0in (2.7cm)

Weight: 8.0oz (228g)

**Camera Attachments:**

10MP (Mega-Pixel) Digital Still Camera with Remote Controlled Tilt, Zoom & Shutter

1080p HD (High Definition) Video Camera with Remote Controlled Tilt

Thermal FLIR (Forward Looking Infra-Red) Camera with Remote Controlled Tilt

Low Light (0.001lux) Dusk/Dawn Black & White Video Camera with Remote Controlled Tilt