

Description of Aircraft System:

AirStar International Mongoose Helicopter

The Mongoose was designed and is produced by AirStar International (ASI). This company provides gas powered helicopters to the hobby market as well as the aerial photography market. This platform has been selected for its reliability as well as its weight lifting capabilities.

The helicopter has been customized specifically for the autonomous helicopter application. Modifications include: Larger main rotor blades, taller landing gear, longer tail boom, extended range fuel tanks, an auxiliary fuel pump, a dual output (12v and 5v) alternator, low fuel sensor.

Listed below are the helicopter specifications:

- Main Blades: 950 mm
- Tail Blades: 25 mm
- Length: 57.25
- Empty Weight: ~21 lbs
- Gross TO Weight: ~33 lbs
- Displacement: 26cc
- Horse Power: 4.5 HP
- RPM Range: 1300-15000 rpm
- RPM Max: 17000 rpm
- Payload Weight: ~12 lbs
- Endurance: Up to 120 minutes

Equipment List:

- Futaba S9550 servos
- Futaba GV-1 Governor
- Futaba GY401 Gyro
- Zenoah G270RC Engine
- Antcom GPS Antenna
- Honeywell HMR 3400 Magnetometer
- Guided Systems Laser Altimeter 150 meter range
- Thunder Power Li-Polymer 2100 mAh Battery Pack
- Cloud Cap Technologies Piccolo II Rotary Wing Autopilot – 900MHz
- Cloud Cap Technology TASE Gimbal Camera