

**BAAZ Mini UAV**

OM UAV Systems

**Baaz Mini UAV** is small category UAV designed for both civilian and military use. The craft is portable and can be operated in most terrains with small clearances because of portable GCS. Can be transported by personnel or in a small vehicle.

## OM UAV Major Advantages:

- The airframe and part avionics have been designed and manufactured in India so the components and maintainable cost would be bare minimum.
- The autopilot has been developed in India so upgrade of software would be a simple.
- The propulsion system is all electric so the field operations are simple.
- The GCS software and the autopilot software are windows based making it easier for most would be customers to use the system.
- The operational cost of the craft is bare minimum thus providing cost effective surveillance systems as compared to ground based vehicles.

## Physical Specifications:

Wingspan	: 1200 mm
Length	: 450 mm
Height	: 50 mm
Flying Weight	: 800 gms
Payload	: 100 gms
Propulsion	: 100 Watt BLDC Motors@11.1Volt
Propeller	: 8x6 carbon fiber.
Flying Battery	: Lithium-Ion 11.1 Volt, 6800 mAh, Discharge @ 2C.

## Radio Control Link:

Encoding	: PPM
Modulation	: FHSS
Freq	: 400-455 Mhz
Max RF Power	: 2000 mW
Channels	: 8
Range	: 10Km, when airborne
Display	: Back-Lit LCD panel on Tx
Battery	: Li-Poly 11.1, 2650 mAh (12 Hrs continuous operation).

## Autopilot:

- Based on ARM Cortex M4 32 bit Processor @168 Mhz, running at 252 Mips, with Real Time Operating System.
- 3-D Six Axis Dual Gyro+Acc
- uBlox GPS with positioning from GPSS, GLONSS, Galelio, Biedu
- Secondary GPS for backup
- 3-Axis Dual Magnetometer
- High Resolution Barometer
- Onboard Micro SD card for Flight Data Logging

## Datalink:

Output Power	: 1000 mW
Modulation Type	: FHSS
Chipset	: RF HM-TRP Radio module
Freq	: 900 Mhz (885-915Mhz)
Baud Rate	: 57,600 kpbs (Selectable)
Range	: 10 Km (With Yagi antenna)

**CUSTOM VIDEO LINK OPTIONS AVAILABLE**

## Payload Options:

- Color video/Still HD camera with onboard HD video recording on 32 GB memory at 1080x720 pixels and AV out of 640x480 pixels. Still Photographs at 2304x1536 with auto shutter.
- Thermal Camera (un-cooled) 320 x 240 Res and 40deg FOV (Selectable) with athermal lens.
- Thermal Camera (uncooled) 640x480 Res and 40 Deg FOV (selectable) with athermal lens.





## Launch and Recovery:

- Hand launch by a single person
- Manual or Auto landing depending on the wind conditions prevailing during mission.
- Parachute recovery possible with optional parachute recovery module.
- 100m x 40m clearance is required to launch the craft.

## Mission Applications:

- By security agencies for observations behind enemy lines
- For flood control to locate stranded people
- For real estate video-graphy
- For patrolling oil and gas pipe lines.
- As transmission relay station for video links and data links
- For traffic monitoring on highways
- For weather data collection using data collection sensors.
- For news and media aerial video-graphy
- Mining Industry for monitoring the mines.
- Border patrolling.

## Capabilities:

- Fully Autonomous from Takeoff to Landing.
- Can be programmed for 300 way points.
- Can Loiter over the subject at any way point.
- 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 play-load activation on reaching the way point.
- Failsafe built in. Will "RTL" if link is lost. Will "Land" if battery is low.
- Radio control switchable navigation lights.

## Ground Control Station:

- Mission control software on rugged Windows laptop.
- Live video monitoring station using a standard AV video monitor.
- Live video and audio recording at GCS.
- Mission control software on rugged Windows laptop.
- Power supplies for GCS.

## Support and Backup:

Lot of the contents are indigenous, the after sales and support would be prompt. The promoters of the company are highly qualified engineers with experience in UAV airframes and avionics. The head quarters of the company are located in the capital city of New Delhi, India. Spare parts would be despatched promptly and technical man power be send at short notices

## Training:

Basic training would be provided and is included in the package. Advanced level training can be arranged on paid basis.

### Note:

- The electronic hardware changes will apply to all the catalogs since the avionics is same on all the UAVS.
- Specifications subject to change without notice.
- All values & capabilities mentioned one under ideal test conditions.
- Optional items do effect pricing.

## Standard Package Contents:

- Bazz Aircraft 1 Nos.
- GCS consisting of android based tablet and video monitor.
- Helical video antenna.
- Clover leaf video antenna.
- Auto antenna Tracker (optional).
- Yagi antenna for data link.
- Propulsion battery 2 units.
- Microprocessor based battery charger.
- Radio control transmitter.
- Mini tool kit.

## Video Link:

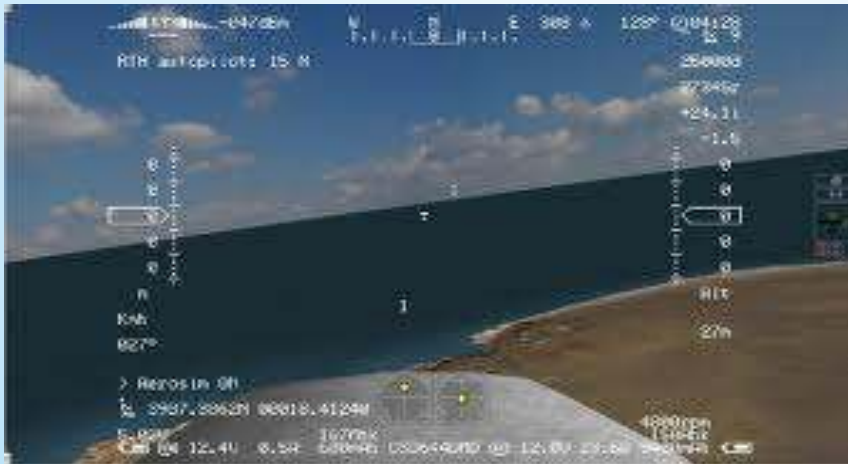
Type	: Analog audio and video
RF power	: 1000 mW
Frequency	: 5.8 GHz, 32 Channels.
Power consumption	: 300 mA @ 11.1 V
Video resolution	: 520 x 420 TVL
Camera Mount	: Gyro Stabilized on pan and Tilt Axis
Recording	: Onboard recording on 32 GB SD card in *.avi format.
Helical Heigh Gain antenna. (Circularly Polarized).	

## Flying Characteristics:

Range	: 7 Km*
Endurance	: 40 Min + 10 Min reserve for failsafe
Accuracy	: within 10 M of the programmed way point
Cruise Speed	: 50 Km/Hr
Max Speed	: 65 Km/Hr
Stall Speed	: 35 Km/Hr
Max Winds	: 20 Km/Hr
Altitude	: 1000 Meters
* Total distance traveled : 7 Km + 7 Km = 14 Km	
Highly Crash Resistant, Hand Launch	



# BAAZ Mini UAV



## Our other products...



Curiosity Plus Quad Copter UAV



Guardian Civilian UAV



Curiosity Quad Copter UAV

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