

**THE MAPPING MAESTRO**

**RYNO UAV** is our micro category survey-grade drone with an advanced mapping payload and state-of-the-art PPK Module. With our extensive experience in building MIL SPEC drones, we have ensured that RYNO UAV offers category-defying performance even in the most demanding conditions.

Up to  
**4 km**  
Operational Range

Less than  
**2 kg**  
Take-off Weight

**0.6 Sq km**  
**Area Coverage**  
with 80/60 overlap  
at 60 m AGL

**<10 cm**  
**Absolute X, Y Accuracy**  
at 60 m AGL (with 95%  
confidence interval)

**<20 cm**  
**Absolute Z Accuracy**  
at 60 m AGL (with 95%  
confidence interval)

More than  
**40 min**  
Flight Time

## Features



### SOI Qualified

iF Family of Survey Grade Mapping Drones are Qualified by Survey of India for Swamitva Yojna



### Best-in-Class Area Coverage

Fly **longer** and **farther** for quicker ROI



### Superior Accuracy

**<5 cm in X & Y - axis and <10 cm in Z - axis Typical accuracy** with survey grade PPK Module



### Terrain Avoidance

**Safely conduct surveying operations** in tough weather and terrain conditions



### Robust Build Quality

RYNO airframe is built for over **2000 mapping operations**



### Compliant With Air Travel

With the rating less than 100 watt hrs, Ryno battery can be hand carried in flight for easy transportation



### Man-portable

**75% Lighter** than Drones with Similar Performance



### Less than 10 minutes Deployment Time

User-friendly assembly to conduct mapping operations faster



### Quadcopter Configuration with VTOL

Conduct operations with **increased flexibility**, even **from smaller areas**



### Minimal Training Requirements

**No UAOP, Security Clearance or DGCA Training** required\*

\*applicable in India only | under 60m AGL



### Waypoint Based Navigation

Tell Ryno where to go and let it take care of the rest



### NPNT Ready

Designed for NPNT standard

# Tech Specs

India is a vast and diverse country. Frigid mountainous regions, hot deserts, humid plains, marine environment and wetlands with torrential rains, the country has regions that represent every weather pattern and terrain conditions. Proudly Made in

India, RYNO UAV has been built to withstand these demanding conditions and deliver stellar performance. In fact, it is first micro category drone in the world that has passed the stringent technical qualification criteria laid down by the Survey of India.

### Aerial Vehicle (AV) Characteristics

UAV Weight with battery and max. payload	<2 Kg
Range of live transmission (LOS)	4 km (un-obstructed & interference free)
Typical Cruise Speed	10 m/s
Functional Temperature Range	-10°C to +50°C
Dust & Drizzle Resistance	IP53 rated
Deployment Time	<10 minutes
Packaging and Storage	Backpacks to carry all mission critical components
Regulatory Compliance	NPNT Ready - applicable for Indian airspace

### Payload Characteristics

GNSS Grade	High accuracy L1 & L2 Frequency Band Enabled PPK
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### Mapping Performance at 60m AGL

Ground Sampling Distance (GSD)	<3 cm
Typical X, Y accuracy	<5 cm
Typical Z accuracy	<10 cm
Absolute X, Y accuracy	<10 cm (with 95% confidence interval)
Absolute Z accuracy	<20 cm (with 95% confidence interval)

### Ground Control Station (GCS) Software Features

Terrain Avoidance	Detects and avoids natural terrain by using elevation data (where available)
Geo Tagging	

### Communication link Characteristics

Autonomous Flight Termination System or Return Home (RH) option	Return home triggered by land command on various fail safe features
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### Failsafe Features

Multiple GPS on-board	For Redundancy
Auto-Return to Home and Land	On Communication Failure
Auto-Return to Home and Land	On Low Battery
Auto-Return to Home and Land	On exceeding Wind limit of the system
Auto-Return to Home and Land	On Battery Imbalance
Auto-Return to Home and Land	On exceeding Temperature limit of the system