



# **DRAGONFISH**

A **Revolutionary** eVTOL Fixed-Wing sUAS





## **Dragonfish** At a Glance



## Why VTOL?

### **Autel's VTOL Advantages**



#### Versatility in Flight

The Vertical Take-off or Landing (VTOL) capabilities of the Dragonfish give you more flight time than a quadcopter and more flexibility than a traditional fixed-wing.

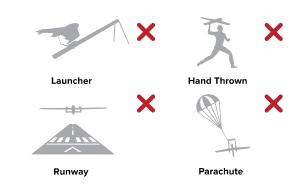
## **Efficient Propulsion**



#### **Compact & Portable Aircraft**

Lightweight and fits in the back of any SUV/crossover vehicle.

### **Limitations of Traditional Fixed-Wing Aircrafts**



#### Fixed-Wing

Traditional methods of take-off for fixed-winged aircraft have additional restrictions and require additional training. Fixed-winged systems may also require parachutes or a clearing to crashland.



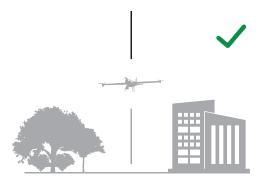
#### **Universal Power Source**

No specialized fuel source needed and next to no maintenance costs.



#### **Near-Silent Operation**

Dragonfish is inaudible above 300 ft AGL.



#### Dragonfish (VTOL)

With the Dragonfish, no launchers, throwing, or runways are needed for take-off. Make any 10x10ft square your take-off and landing area.



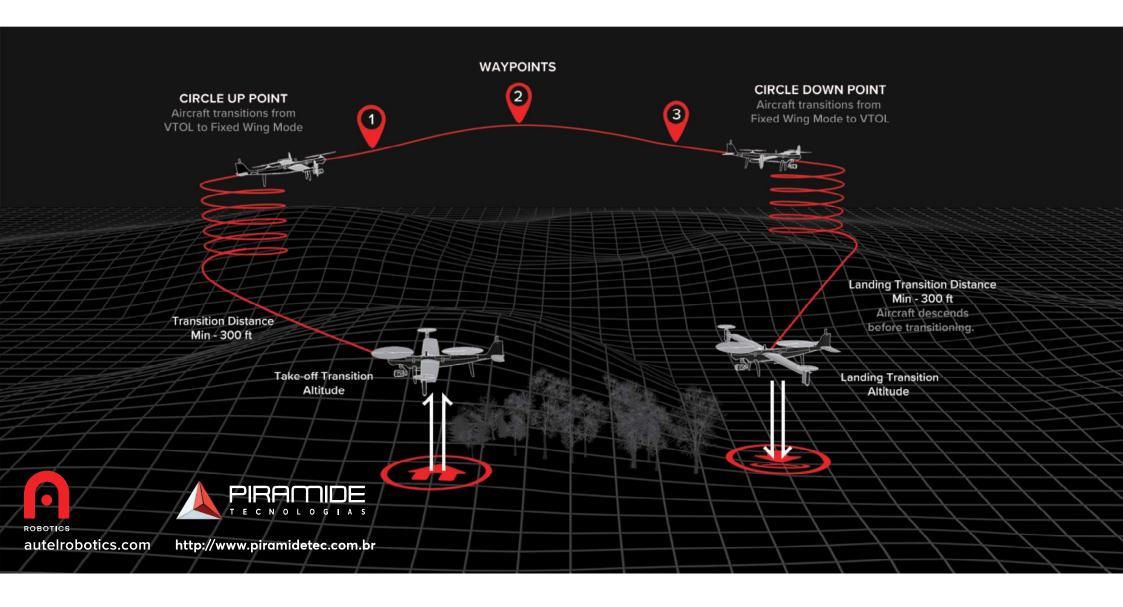
#### Designed for the Future

An eco-conscious and green aircraft.





## **Dragonfish** Flight Logic



## Compact, Portable, Precise



### **Ultra-Portable:**

The Dragonfish's carrying case is lightweight and fits in the back of any SUV/Crossover.



### **Fast Deployment:**

The Dragonfish can be assembled toolless in 2 minutes and is ready to fly in 5.



## **Class-Leading Flight Time:**

120 minutes of flight time with payloads.





## **World-Class Telemetry:**

30 km (18.6 miles) video transmission range\* \*with base station setup.



### Wind Resistant:

Level 7 32-38 mile/hr winds  $^*$  (\* While transitioning, the wing resistance is level 6) .





## Redundancy with Safety in Mind



#### Flight Control System:

Autel Robotics' superior flight control platform guarantees stability and reliability in every flight.



#### **Weather-resistant:**

IP43. Rugged construction featuring a carbon-fiber core and fiber-glass composite outer shell provides additional rigidity and durability.



#### **Internal Communication:**

Dual-redundant CAN bus communication protects the aircraft from electromagnetic interference.



#### Attentive AI:

Vigilant AI continuously self-checks the system to prevent accidents or faults before they occur.



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http://www.piramidetec.com.br



#### **Automatic Mode Switch:**

Dragonfish will automatically transition to multi-rotor mode if fixed-winged mode becomes unstable.



#### **Backup Modules:**

The aircraft's battery, barometer, positioning system, compass, and IMU all have backup modules to ensure flight safety.



#### **Terrain Follow:**

The aircraft's altitude will adjust based on natural terrain & obstacles. Manually adjust safe altitude tolerance as well.



#### **Self Geofencing:**

Create your own no-fly zones and safe fly zones near restricted airspace.



#### ADS-B:

With ADS-B receiving, detect the presence of any manned aircraft nearby to avoid mid-air collisions

## Interchangeable Payload System



DG-Z2

4K 20x Optical Zoom 12 Megapixel Wide-Angle Camera 3-Axis Stabilized Gimbal System



DG-T3

4K 20x Optical Zoom 12 Megapixel Wide-Angle Camera 640x512 High-Resolution Infrared 3-Axis Stabilized Gimbal System



DG-T3H

12 Megapixel Wide-Angle Camera 1280×1024 High-Resolution Infrared Laser Distance Measurement Radar 3-Axis Stabilized Gimbal System



**DG M1** 

1 Visible Light Sensor (12 Megapixels)6 Multispectral Sensors3-Axis Stabilized Gimbal System



**DG L20T** 

4K 20x Optical Zoom 12 Megapixel Wide-Angle Camera 640x512 High-Resolution Infrared Laser Distance Measurement Radar 3-Axis Stabilized Gimbal System



Third-Party Payload SDK

Coming Soon





#### Zoom:

Identify subjects from long distances. (20x, 50x)



## Wide-Angle:

Aids in situational awareness.



## **Laser Range Finder:**

Allows Dragonfish to target lock with exact distance and coordinate measurements. (Range 2km/ 1.25 mi)



### Thermal 640x512:

Sensor Capabilities

High-resolution thermal imaging allows Dragonfish to see subjects in difficult terrain or in low light situations.





## **Ground Control Station**



## **Ultra-bright Display**

9.7" 1000 nit display for daylight operation; twice as bright as a mobile device.



### (14.5 Long Battery Life

4.5 hours of battery life. Supports fast charging for multi-mission days.



### **Multi-port Output**

Stream to 3rd party sources via the HDMI 2.1 output.



## **Data Encryption**

Get reliable AES-256 bit encryption for data at rest and for data during transit.



## Simple and Intuitive:

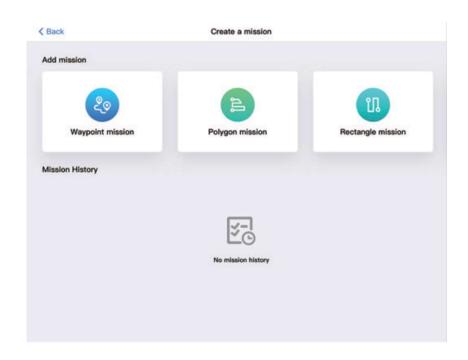
Large button layout makes it easy to operate, even while wearing gloves.







## Autel Voyager



### **All-in-one Mission Planning**

Perform advanced waypoint, rectangular, and polygon missions from start to finish.





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### **Quick Mission:**

Create missions on the fly while the Dragonfish is in another mission. Create multiple missions within missions to suit changing situations.

Autel Voyager 11



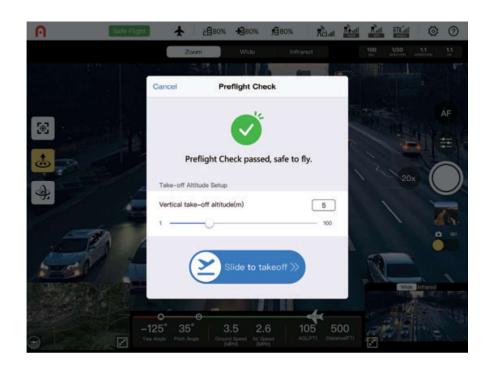
### **Manual Take Over:**

The pilot can fly the drone manually at any point during a flight. The Dragonfish will automatically transition between fixed-wing and quadcopter mode depending on airspeed.





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## **Easy 1-Tap Take-off and Landing:**

Simply tap the screen and the Dragonfish will fly where you want it to go. Tap again to safely land the aircraft.



### **Advanced & Predictive Tracking:**

Track subjects at speeds of up to 60 mph. Continue to track moving objects, even when the object temporarily leaves line of sight.



## **Object Recognition:**

Dragonfish can recognize up to 64 objects and can identify distinct objects, such as humans, animals, and vehicles.





## **Practical** Use Cases



**Public Safety** 



Oil & Gas Corridor Inspection and Security



**Border Patrol Security** 



**Firefighting & Fire Prevention** 



**Traffic Monitoring & Management** 



**Critical Infrastructure Protection** 



Search & Rescue



**Coastal Surveillance and Security** 



**Disaster Relief** 





## Technical Specifications

Size	90.55" x 50.78" x 18.1" / 2300 x 1290 x 460 mm
Endurance (with payload)	120 min
Aircraft Weight (w/o payload)	16.5 lbs (7.5 kg)
Maximum Payload	3.3 lbs (1.5 kg)
IP Rating	IP43
Transmission Range	18.6 miles (30 km)
Wind Resistance	Level 6
Maximum Height	19,685 ft (6000 m)
Flying Speed	Omph to 38mph (Multirotor); 38mph to 67mph (Cruise Mode)
	0m/s~17m/s (Multirotor); 17m/s~30m/s (Cruise Mode)
Working Temperature	-4°F to 122°F (-20 to 50°C) 1 cm+1 ppm (Multirotor)
Position Accuracy	3 cm+1 ppm (Cruise Mode)
GNSS	GPS+GLONASS+Beidou+Galileo









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