

#### Services

#### **SURVEYS**

**DGPS Survey** 

**Total Station Surveys** 

Aerial surveys

**UAV Survey** 

360 Degree Panoramic Video

Mapping

LIDAR survey

**GPR** survey

Site Investigations

Alignment Surveys

#### **MONITORING**

Impact Evaluation

**Project Monitoring** 

Agriculture Monitoring

Infrastructure Monitoring

Disaster Monitoring

#### **SOFTWARE**

Web GIS

Mobile GIS

Enterprise GIS

Dashboards

GeoPortals

GeoData Base

#### **MAPPING**

**Urban Mapping** 

**Utility Mapping** 

Natural Resource Mapping

Land Use Land Cover Mapping

Soil Resource Mapping

**Ground Water Mapping** 

Forestry Mapping

Resource Inventory

**Environmental Impact Assessment** 

Disaster Management

#### **PLANNING**

Master Plan

Development Plan

Town Plan

Municipal Mapping

Property Tax Mapping

#### **GIS & IMAGE PROCESSING**

Image Processing

Photogrammeetry

**UAV Data Processing** 

Lidar Data Processing

Mineral Exploration

Utility GIS

#### Specialised in







# **Agricultural Drone**

#### VG P100 Agricultural Drone

It's More Than a Larger Scale



#### VG V40 Agricultural Drone

Agrifuture, Here and Now



#### VG P40 Agricultural Drone

A Bigger Upgrade, An All-round Flagship



## VG Planet Agricultural Drone

The Ultimate Agricultural Drone



#### V Series Plant Protection UAS

V Series Plant Protection UAS is a type of aerial spraying system designed for plant protection.



## V30 PLANT PROTECTION UAS

The Future Starts Today



#### VG M500 Remote Sensing Drone

Seeing The Big Picture In Every Detail



#### VG M2000 Remote Sensing Drone

A Vast Field Captured In a Blink



#### **AutoPilot Console**





### Unmanned Ground Vehicle



#### VG 2022 Unmanned Ground Vehicle EV

Transform for Every Agricultural Mission



#### VG 2020 Unmanned Ground Vehicle EV

A Customised Platform for Every Agricultural Mission







## Lifesaver Water Rescue Robot V1

Water rescue robot is the standard rescue equipment applicable to government emergency and private aid groups, in scenes like sea, reservoir, river, lake and so on. It's also the equipment with a standard of marine, which meets the military's needs of systematic functions customization during specific rescue missions.





#### **Lifesaver Water Rescue Robot V1**

Water rescue robot is the standard rescue equipment applicable to government emergency and private aid groups, in scenes like sea, reservoir, river, lake and so on. It's also the equipment with a standard of marine, which meets the military's needs of systematic functions customization during specific rescue missions.

Parameters	Size: 980mm*780mm*260mm	Weight: 15.1kg	
	Towing weight: 500kg	Battery life: 50 mins	
	Buoyancy: 750N (equivalent to 4 swim rings)	Maximum range: 5km	
	Maximum speed: 7m/s (without loading)/	Maximum remote control distance: 1500m	
	2m/s(80kgloaded)		

#### **Our Advantages**

- **Rapid rescue:** Water Rescue Robot reaches people at risk on water at the speeds of 7 meters per second and save them immediately within the golden rescue time.
- For the safety of rescuers: Rescuers using Water Rescue Robot can realize either manual or remote operation. With remote controller, rescuers can control the Water Rescue Robot to go and save those drowning within 1500 meters, avoiding the risk and/or accident from work. It's also available for One-key Return, Original Route Return, Signal Losing Return and so on.
- Bad weather. No problem: Anti-turnover design, double propellers and strong buoyancy enable Water Rescue Robot to be applicable to bad weather and even flood prevention rescue work.
- **Safer experience:** Enclosed with safety grills, user doesn't need to worry about their hair getting tangled by propeller. And, its rubber head can also prevent collision from hurting passenger.
- **High-tech module equipped:** Over the Water Rescue Robot, user can definitely know what's happening to the robot whenever they want by just watching the LCD screen that shows Battery, Speed, Direction and so on. It's also got Human Detection Module that detects if user is away from 40 centimeters. It will stop for safety, if so, waiting for user to come back to the robot again.
- Multiple payloads optional: Payloads are optional for different purposes, such as speaker for talking to
  those at risk and nervous and for speaking while searching, GoPro camera for recording on-site, alarm
  for alerting, and swimrings and life-saving bag for saving more people.





## Water Rescue Robot V2

Water Rescue Robot V2 is a standard rescue equipment suitable for government emergency, private aid groups, and SAR organizations. It's applicable to swimming pool, reservior, river, beach, and yachts and ferries rescue

management. The water rescue robot V2 has remote control and manual operations, supports double-sided driving, supports 20-meter high-altitude throwing, and has a battery life of up to 60 minutes. The Water Rescue Robot V2 can be operated quickly in dangerous situations, it improves the efficiency of rescue while ensuring the safety of rescuers.



#### **Smart Emergency RC Lifebuoy Water Rescue Robot V2**

Water Rescue Robot V2 is the standard rescue equipment suitable for government emergency, private aid groups, and SAR organizations. It's applicable to swimming pool, reservoir, river, beach, and yachts and ferries rescue management.

w	Size	1020×800×200mm	
e :	Weight	≤15kg	// <b>II</b> //
let	Max Speed	≥8.8m/s(Without loading);	
Parameters		≥2.5m/s(80kg loaded)	
	Battery Life	≥60min	
	Throwing Distance	≥20m	
	Buoyancy	≥300kg	
	Waterproof	Ip68	812 A B
	RC Range	≥1500m	
	Control Methods	Remote/Manual Operations	
	Driving Style	Double Sided Driving	

#### **Features**

- The robot is made of anti-corrosion and anti-ultraviolet HDPE material, which has high toughness, impact resistance and wear resistance; the robot head has a soft rubber for anti-collision;
- Support one-key return, signal losing return, original return, straight return, low battery return;
- Rescue robots can be thrown from a height of 20 m to the water surface.
- The remote controller adopts dual-hand operation design, which can display the power of the rescue robot and the power of the remote controller.
- With APP function, realize automatic route, pointing route, mode display, robot power, robot latitude and longitude, robot video, trajectory playback and custom home point and so on;
- Double sided driving, the robot can drive normally even if there's wind and wave to roll it over;
- V2 can cooperate with drone to realize air-sea rescue, automatically execute follow mode;
- Equipped with yellow flashing position indicator fog lights, it's visible in the dark.





# **Smart Emergency Rescue Drone**

Rescue Drone is composed of an aircraft, a payload, a remote controller and other accessories, which is easy for players to carry and operate. Besides, it takes less than 30 seconds to deploy







Rescue Drone is fully armed with a range of advanced technologies including intelligent flight system, dual-redundancy sensing system, integrated TOF obstacle avoidance system and optical flow orientation system. Meanwhile, its stable and efficient flight is supported by intelligent batteries which can endures for 40 minutes. The smart quick-disassembling interface enables this product to load with various kind of functional payloads.

Parameters	Diagonal Wheelbase	852mm	Max.Operating Distance	7km
	Weight Without Payloads	5.2kg	Max.Transmission Distance	7km
	Max.Payload Capacity	2kg	Max.Wind-resistance	Level 6(12m/s)
	Max.Flight Time	40min	HoveringAccuracy	Horizontal±1m.Vertical士0.5m
	Max.Flight Speed	18m/s	Power Capacity	7000mAh X 2
	Max.Flight Altitude	3000m	Anti Fall	0.8 Meter Vertical Downward

- Smart Industrial drone to be operated by everybody Easy to operate/No training required
- Industrial drone in backpack Foldable/Light weight/Easy carry
- **Mobile follow-up** The drone can intelligently follow the moving remote controller held by an operator or certain objects.
- **Intelligent obstacle avoidance** The UAV equips with a front-view sensor, Which can defect obstacles in the range of 0.5-20 meters in front, and can effectively avoid collisions.
- **Optical Flow Positioning** For a low-altitude flight without GPS signal indoor, the drone can sense the ground texture through the optical flow module, achieve a precise hovering and stable flight.
- **Headless Mode** No matter what direction the drone's head and tall are in. It can identify the location of the remote controller automatically its direction will never be lost, easy control.
- Good performance in wind & rain resistance Industrial Level Quality Max. Wind Resistance: 12 m/s Ingress Protection: IP44





# **Water Heating Stretcher**

The water heating stretcher is a standard rescue equipment for government emergency as well as various water rescue organizations. It is used for water emergency rescue, helping unconscious people, emergency material transportation, and other scenarios. It is convenient for carrying people and emergency materials.

The water heating stretcher is a standard rescue equipment for government emergency as well as various water rescue organizations. It is used for water emergency rescue, helping unconscious people, emergency material transportation, and other scenarios.



When encountering danger, there is no need to inflate it, it can be directly unfolded to operate, reaching the incident place at a speed of 6 m/s and safely transferring the drowning person. It supports remote and local control mode, and the remote control displays real-time information such as battery level and distance. It supports heating function to maintain the rescued person's temperature in low-temperature environments. In addition, the stretcher is equipped with 2 straps and 9 handles, which can firmly fix the drowning person and avoid secondary injuries. Equipped with sound and light alarms, it is convenient for rescue operations in nighttime or rainy weather.

(0)	Size:(1810*740*240)±5mm	Weight: 26kg
ter	Maximum weight of hauling: 400N	Position: GPS & BDS
ırameters	Battery capacity: 36AH/12S	Waterprooflevel: Ip68
	Maximum speed: 6m/s (without loading)	Maximum remote control distance: 1500m
Pa	2.5m/s(75kgloaded)	

#### **Our Advantages**

- Product Material: Made from HDPE to resist corrosion and UV.
- **Mode Switching:** Remote and local operations.
- **Foldable Body:** Folding and opening on the water or land within 20 seconds.
- **Rescue Facilities:** 2 horizontal straps and quick buckles, 9 handles and a head and neck fixing device.
- Double Protection: Adopts soft rubber for the head to absorb shock and injury; Built-in high-power dual propellers can prevent water grass, sand, and prevent entanglement of the human body with foreign objects.
- **Heating Function:**  $\geq$  40  $^{\circ}$ C to prevent the rescued person from getting cold.
- **Sound and Light Alarm:** Supports rescue operations in nighttime or rainy weather.
- **Local Control:** Supports controlling the direction and speed by manual.
- Multiple Return Modes: Supports one-key return, signal losing return, original route return, straight-line return, low-battery return.
- The remote control supports automatic route, designated waypoint route, mode display, robot power display, robot latitude and longitude display, video display, route playback, and designated return point.





# **Commercial Drone Services for Various Industrial Sectors.**

#### Drone as a service

























# Anti Drone System

#### **FEATURES**

- Radio Frequency & GPS Jamming.
- Custom Power Configuration 20W-60W
- Freauency coverage of 2.4 GHz and 5.8 Ghz.
- Operational Mode Auto/Manual.
- VSWR & Over Temperature Protection.
- DDS Based Jammer Signal generator.
- Jamming Range Omni (1.25km) & Directional (2km).



#### **Multispectral Drone**

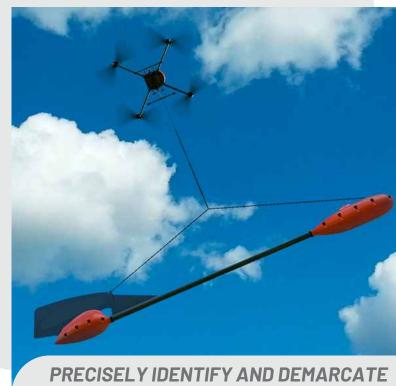
#### **FEATURES**

- Multispectral sensors for a wide range of surveillance missions
- Long Range Capability to cover vast areas with ease
- Live Video Streaming for instant situational awareness
- Day & Night Capability for seamless operations
- Custom Payload Option to adapt to specific mission requirements
- Autonomous Flight Capability for efficient operations
- Portability & Ease of Operation for rapid deployments
- High Wind Resistance for stable flights



# DRONE BASED MAGNETOMETERS FOR GEOPHYSICAL SURVEYS

- Geological study for Mineral prospecting of severe terrain, harsh deserts, and inaccessible areas without disturbing are ecology and without human exposure.
- Directly reach the drilling targets by reducing 80% of drilling efforts.
- Fully autonomous flight with follow the terrain advantage.



**PRECISELY IDENTIFY AND DEMARCATE**GOLD, COPPER, LITHIUM, LEAD/ZINC, NICKEL,
MAGANESE, IRONORE ETC.

# PRECISELY AND EASILY IDENTIFY GOLD, COPPER, POTASH, LITHIUM, GRAPHITE,

# DRONE BASED GPR-GEOPHYSICAL SOLUTIONS

- Mineral prospecting with high precision. in coal, bauxite, magnesium, gold, base metals, etc.
- Talling dams in mines (Strength & Leakage analysis)
- Cavity-land/underground monitoring
- Detection of underground tunnels, Structures, and pipe leakages.

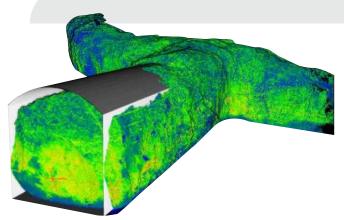


LEAD/ZINC, NICKEL, MAGANESE, COAL, IRONORE ETC.

# DIGITAL TRANSFORMATION IN MINING THROUGH AI & ML

- 3D REALITY MODELLING
- MINE PLANNING & DESIGN IN OPEN CAST MINES
- VALUMETRIC ANALYSIS OF LARGE STOCK PILES
- DRILL & BLAST OPTIMISATION USING AI & ML - AND HUGE COST SAVING
- SLOPE STABILITY ANALYSIS WITH AI & ML







AUTONOMOUS FLYING IN UNDERGROUND MINES AND TUNNELS

#### DRONE-BASED LIDAR 3D MAPPING

- Mine Planning & Design in Underground.
- Ore dilution control & enhanced are recovery.
- Monitoring Drilling & Blasting
- Over break & Under break monitoring.
- Access fall-of-ground
- Monitoring of Backfilling and mined-out stopes.
- Health & monitoring of Roof bolts/Ground support.



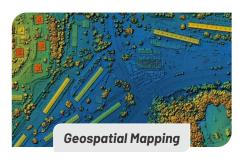




#### UAV is International Laboratory Accreditation Cooperation (ILAC) Certified to Military Standard 810G

Compact UAV with a monocoque carbon body and aerodynamic shape. Scalable base platform which is easy to customize.

#### **Major Applications**







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Frame	Integrated Monocoque Design		
Max. Take-off Weight	6kg		
Payload Capacity	Uptill 1.kg		
Max. Operating Altitude	3500m AMSL		
Max Ceiling Altitude	1000m AGL		
Endurance with MTOW	60-80 Mins		
Max Speed	60 Km/h		
Range	Over 10 km in Radius		
Operating Temp Range	-10°C to + 55°C		
Dimensions	0.7mx0.6m		
Landing Gears	Fixed /Retractable		







# Portable Counter UAV System

C-UAS System is a portable Plug & Play, easy to use system for the Detection, Tracking, Identification, and neutralization Military Grade Design having Shell protection level Ip67. Field proven Technology Readiness Level (TRL)9.

#### RF DETECTOR

RF Detector is a fully passive (non emitting) solution, it senses the controller and the UAV even if the UAV hasn't taken off the ground. The internal database of UAVs is regularly updated.



#### **KEY FEATURE**

- Coverage: +-90 in Elevation, 360 in Azimuth. UAV detection and identification of protocol used. Direction finding for WiFi frequencies with up to 5° RMS accuracy. Up-to 5,000 m detection range.
- Close to zero false alarms. For operator geolocation, three or more RF detectors are required

#### **Technical Specifications**

DESCRIPTION	SPECIFICATIONS
Detection frequency bands	433 MHz(No DF), 915 MHz(No DF), 2.4 GHz ISM, 5.8 GHz ISM
Detection methodology	Passive detection of radio-frequency (RF) signals; zeroemission
Radio operating frequency range / Platform	Software defined radio (70MHz-6GHz)
Direction Finding (DF) Accuracy	5° RMS
interface	Ethernet
Detaction Range	Upto5km
Detection Time	5-10 seconds
IP Rating	>=lp66
Working temperature	(-25+2)°Cto(+55+2)°C
Power Consumption	35W
PowerSupply	36 VDC (115 - 230 VAC power supply included)
Dimensions(diameterxhight)	318 mm x 294mm
Sensor(including antenna) weight	9.5 kg
Dynamic range	70 dB
Scanning frequency resolution	<100Hz
Minimum frequency bandwidth detectable	<100Hz
Supported wireless protocols	LightBridge, Ocusync; WIFI and WIFI variant protocols,
	Zigbee, bluetooth, NTSC/PAL, UAV-telemetry.
	Majority of DIY remote controllers and FPVs, etc.
Supported wireless modulations	OFDM, DSSS, FHSS, GFSK, OQPSK, Analog FM, 2FSK, BPSK, QPSK,
	16QAM, 64QAM, etc.





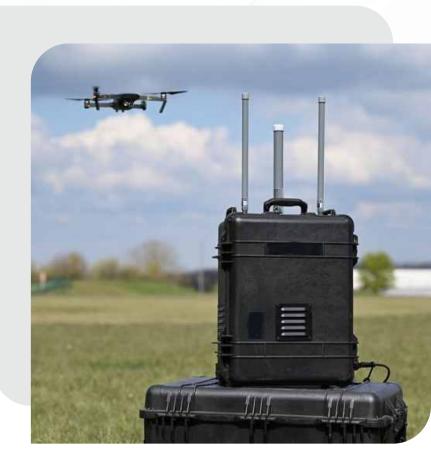
# **RF Jammer**

RF Jamming system is an active soft-mitigation solution. It disrupts the communication link between the controller and the UAV and the navigation signals.

(GPS) which causes the UAV to go back home or land in its place (Depends on the failure procedure of the UAV's manufacturer).

Defensive capabilities can be triggered either manually or automatically.

Defense Configurations can be set up in the menu bar system settings.



#### **KEY FEATURE**

- Omni-directional Antennas
- Automatic/Manual Jamming operation Modes
- 24/7 Autonomous Defense Operations
- Rapid Mitigation (< 5 seconds)</li>
- Rapid Deployment
- Supports Consumer and Commercial ISM Frequencies

#### **Technical Specifications**

	BASIC	STANDARD	PREMIUM	
	2.4 GHz - 100w	2.4 GHz - 100 w	2.4 GHz-100 w	
Frequencies	5.8 GHz - 80w	5.8 GHz - 80 w	5.8 GHz - 80 w	
	900 MHz - 20 w	900 MHz - 20 w	900 MHz - 20 w	
			400-433 MHz-20 w	
GNSS frequencies	1.5 GHz-20w	L1-1.5 GHz 20 w	L1-1.5 GHz 20w	
		L2-1.2 GHz 20w	L2-1.2 GHz 20 w	
Coverage	Elevation = -30° + 60°, and Azimuth = 360°			
Jamming Range	Upto 3km			
IP Rating	lp66			
Operational	-20 to 65°C			
Temperature				
Powersupply	100-240 VAC			
Dimensions	120×240×413 mm			
Power consumption	<750w			
Weight	11.5kg			









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