
Fly Fish
your advantage
in battle
FLYFISHDRONE.COM.UA

About the company

FlyFish is a Ukrainian company that creates new standards in the production of military FPV drones. We work for the victory of Ukraine by providing the military with modern technologies. All drones are tested to meet the requirements of the Ministry of Defense of Ukraine.

Certified by the Ministry of Defense of Ukraine

The production cycle allows manufacturing from 5000 FPV drones, 100 Katran UAVs

Purchasing components from domestic (Ukrainian) manufacturers and in Europe ensures stable production

A team of professionals is constantly developing new solutions for the army

How it works

We work for victory: Every drone, every decision is a contribution to the defense of our country.

Continuous development: We never stop. Today we make the best drones on the market, and tomorrow we will create something that will change the conditions of war.

Speed and flexibility: We respond quickly to requests from the military, volunteers and other customers. Our processes are optimized for fast delivery and adaptation of the product to specific tasks.

Teamwork: Every employee is an important part of the team. We expect everyone to be fully engaged in the process and ready to take responsibility for their results.

Innovations: We create solutions that provide an advantage in modern warfare. We always have new developments that are at the stage of testing or implementation.

FPV drone with fiber optics FlyFish Harpoon

Technical characteristics of FlyFish Harpoon	10″	13″
Communication technology	Fiber optics	
Fiber length, km	10, 20, 30	
Payload, kg	1,5	3,0
Cruising speed, km/h	55-80	55-80

Characteristics of fiber optic reels

Weight, kg	0,9	1,5
Fiber optic thickness, mm	0,25	0,25

Equipment

- FPV drone FlyFish Harpoon
- Attaching the coil to the drone
- Fiber optic reel with air module
- Ground control station (extra charge)

Description

The FlyFish Harpoon FPV fiber optic drone is a high-tech unmanned aerial vehicle that uses a fiber optic communication channel to control and transmit video signals.

Thanks to this, the drone is fully protected from electronic warfare (EW) and signal jamming by the enemy.

Reliable control via fiber optics allows for combat and reconnaissance missions in difficult conditions.

Advantages of FlyFish Harpoon

- **EW resistance:** control is via fiber optic cable, which makes the drone invulnerable to jamming.
- **Reliable connection:** stable video transmission without interference and delays.
- **Data security:** inability to intercept enemy control.

Application in combat conditions

FlyFish Harpoon drones are designed to be used in combat operations where there is a risk of powerful electronic warfare. The FlyFish Harpoon is a technological breakthrough in the field of UAVs that allows you to effectively perform tasks even in conditions of intense electronic warfare.

Katran unmanned aerial vehicle

UAV type	**flying**
UAV takeoff method	**catapult**
Power plant type	**electric, 2 pcs**

Control and telemetry protocol	**Protected FHSS (adaptive)**
Video transmitter frequency, GHz	**1.2 • 1.3 • 4.9 • 6.0**
Maximum takeoff weight, kg	**10**
Payload weight, kg	**3**
Flight range, km	**40-55**
Flight duration, minutes	**35**
Automatic target acquisition	✓
Available optoelectronic reconnaissance means	Video camera

Parameter names	Parameters
Maximum flight range	55 km
Tactical radius	40 km
Flight duration	35 min
Flight height: maximum working	 1 200 m 150 m
UAV flight speed minimum cruise maximum	 50 km/hr 80-90 km/hr 170 km/hr
Range of detection and recognition of typical targets (such as a tank, car, human figure): by a video camera	 400 m 100 m (growth figure)

Katran unmanned aerial vehicle

The Katran Fly Fish is a modern military unmanned aerial vehicle designed to perform highly accurate combat missions in difficult conditions. Thanks to its long range, robust design and secure communication channels, the system is capable of effectively hitting important targets deep behind enemy lines. The ability to install various types of warheads allows it to be adapted to destroy enemy vehicles, cannon artillery, command posts and other targets. Fly Fish "Katran" provides stability and accuracy even in difficult weather and electronic conditions, making it an indispensable tool in modern warfare.

- **Range up to 50 km:** allows you to perform tasks with maximum efficiency, hitting targets behind enemy lines
- **Dual-engine design and aerodynamic wing:** guarantee stable flight even in strong winds of up to 15 m/s, which is critical for performing tasks in the field.
- **Flexible payload:** supports a variety of warheads — cumulative, high-explosive, fragmentation, etc., providing flexibility in performing combat missions.
- **Secure communication and video channel switching:** adaptive frequencies with encryption and video channel switching to combat curtain interference ensure uninterrupted control and data transmission.
- **Auto-targeting function:** automatic target acquisition and tracking ensures accurate strike with a deviation of up to 2m.
- **Fast deployment:** the system is ready to fly in 10 minutes, which minimizes preparation time.

FPV Fly Fish drone with auto-return

	7″	8″	10″
Control and telemetry protocol	ExpressLRS ExpressLRS Diversity TBS Crossfire Secure communication sine.link		
Video transmitter frequency, GHz	1.2 • 3.3 • 4.9 • 5.8		
Control frequency, MHz	868-915 • 735-790 500-560 • 370-420 Secure communication (FHSS)		
Payload, gram	1 200	1 500	2 000
Flight range, km	15	15	17
Flight duration, minutes	15	15	19

The FPV drone with an autoguidance system is designed to provide maximum efficiency in combat missions.

The main problem of traditional FPV drones — loss of communication with the operator at the final stage of the attack — is solved by the introduction of an autonomous guidance system. This technology allows the drone to adjust its course independently in the event of signal loss, increasing the likelihood of an accurate hit on the target.

The main advantages of the auto-delivery system

- Automatic course correction in case of loss of communication with the operator
- Possibility of re-capturing the target in case of signal recovery
- Activation / deactivation via the toggle switch on the radio equipment.
- Optimized operation logic, which allows the drone to operate effectively even in conditions of enemy electronic warfare

Technical characteristics

- **Camera:** digital, 720p, 30 frames per second - used as the main camera for control and guidance
- **Compatibility:** integration with Betaflight, iNav, ArduPilot controllers
- **OSD:** all information about the system operation is displayed directly in the FPV helmet or on the operator's monitor

Application in combat conditions

Before launching the drone, the operator pre-configures and tests the target capture system.

In case of loss of control, the drone automatically switches to the auto-guidance mode to the specified object.

This makes it possible to increase the efficiency of combat missions and minimize the risk of drone destruction due to signal loss

FPV Fly Fish drone with FHSS

Codified

	7″	8″	10″
Control and telemetry protocol	Secure communication sine.link		
Video transmitter frequency, GHz	1.2 • 3.3 • 4.9 • 5.8		
Control frequency, MHz	Secure communication (FHSS) (adaptive)		
Payload, gram	1 200	1 500	2 000
Flight range, km	16	15	17
Flight duration, minutes	15	15	18

FHSS — a reliable solution for stable communication

The FHSS (pseudo-random frequency hopping) system ensures stable radio communication in difficult conditions. Technology dynamically changes the signal transmission frequencies using a pseudo-random algorithm, which makes it much more difficult to interfere with and intercept the signal.

The main advantages of the system

- **Adaptability:** automatically changes frequencies to avoid interference
- **Security:** use of AES-128/256 encryption and dynamic key updating
- **Flexibility:** the ability to customize to the specific needs of the customer
- **Additional features:** virtual GPS, friend-or-foe systems, search beacons

Brief technical specifications

- **Frequencies:** 650-950 MHz, 500-800 MHz, 500-1000 MHz.
- **Communication range:** up to 30+ km
- **Modulation:** FSK/LoRa.
- **Transmission speed:** до 100 Kbit/s.
- **Interfaces:** UART, USB, GPIO (MAVLINK, SBUS, CRSF).

The FHSS is ideal for unmanned systems that require reliable and secure communication

Fly Fish FPV drone

	7″	8″	10″
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Video transmitter frequency, GHz	1.2 • 3.3 • 4.9 • 5.8		
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Flight range, km	15	15	17
Flight duration, minutes	15	15	18

Fly Fish offers a large number of FPV drones in standard configurations that meet the most common requirements for combat use. These drones are designed to provide maximum ease of use, reliability and efficiency

Advantages of the standard line

- **Versatility:** Standard models with the most common components ensure quick integration into any combat operations
- **Ease of use:** Drones do not require additional training, which allows them to be put into operation quickly
- **Mass production:** The constant availability of a large number of drones in stock ensures the ability to quickly dispatch orders of any size
- **Reliability:** Each model is designed to work in difficult conditions, ensuring stability and accuracy of tasks.

The typical Fly Fish line is the perfect choice for:

- **Reconnaissance missions:** With ease of operation and stability
- **Combat missions:** High efficiency of target destruction even in the most difficult conditions
- **Operator training:** Thanks to standard features and ease of use

FPV drones from the typical Fly Fish lineup

are the optimal solution for performing combat missions quickly, efficiently and without spending too much time on adaptation or training

Integrated solutions:

Unmanned aircraft system (UAS)

UAS Fly Fish RX-1

Unmanned aerial vehicle (UAV) Fly Fish 7 "Shark", size 7 inches, 1 pc.	**from 50**
Operator set, units	**1**
Remote antenna complex, units	**1**
Maintenance and control equipment, units	**1**
A set of operational documentation (form, flight operation manual), units	**1**
Transport containers, units	**According to the order**

UAS Fly Fish RS-1

Unmanned aerial vehicle (UAV) Fly Fish 8 "Stingray", size 8 inches, 1 pc.	**from 50**
Operator set, units	**1**
Remote antenna complex, units	**1**
Maintenance and control equipment, units	**1**
A set of operational documentation (form, flight operation manual), units	**1**
Transport containers, units	**According to the order**

UAS Fly Fish X MAX-1

Unmanned aerial vehicle (UAV) Fly Fish 10 "Barakuda", size 10 inches, 1 pc.	**from 50**
Operator set, units	**1**
Remote antenna complex, units	**1**
Maintenance and control equipment, units	**1**
A set of operational documentation (form, flight operation manual), units	**1**
Transportation containers, units	**According to the order**

Sprout repeater (based on a 10-inch frame)

Repeater-drone frequencies	**1.2 GHz on video** **5.8 GHz on video** **915 or custom control or sine.link**
Operator-repeater frequencies	**5.8 GHz for video transmission** **ELRS/TBS 915 MHz for control**
Autonomous power supply	**6s3p, 15000 mAh**
Flight duration, minutes	**30**

Information

Sprout is an FPV drone with a built-in transponder that provides stable communication in difficult conditions (mountains, cities, forests). Thanks to its mobility and high-altitude lift, it eliminates obstacles and extends the range of combat drones.

Technical characteristics

Communication frequencies
Drone repeater

- **Відео:** 1.2 GHz, 5.8 GHz
- **Control:** 915 MHz or custom frequency
- **Control system:** ELRS/TBS 915 MHz
- **Autonomy:** 6s3p battery, 15,000 mAh (2 batteries included)

Additional benefits

- **Optical stabilization for precise hovering**
- **Quick replacement of antennas**

Advantages of Sprout

- **Expanding the range of FPV drones:** the signal passes without interference even in difficult conditions.
- **Stable communication:** use of AES-128/256 encryption and dynamic key update
- **Autonomy and mobility:** the ability to customize to the specific needs of the customer
- **Integration with custom frequencies:** virtual GPS, friend-or-foe system, search beacons

FOR NOTES

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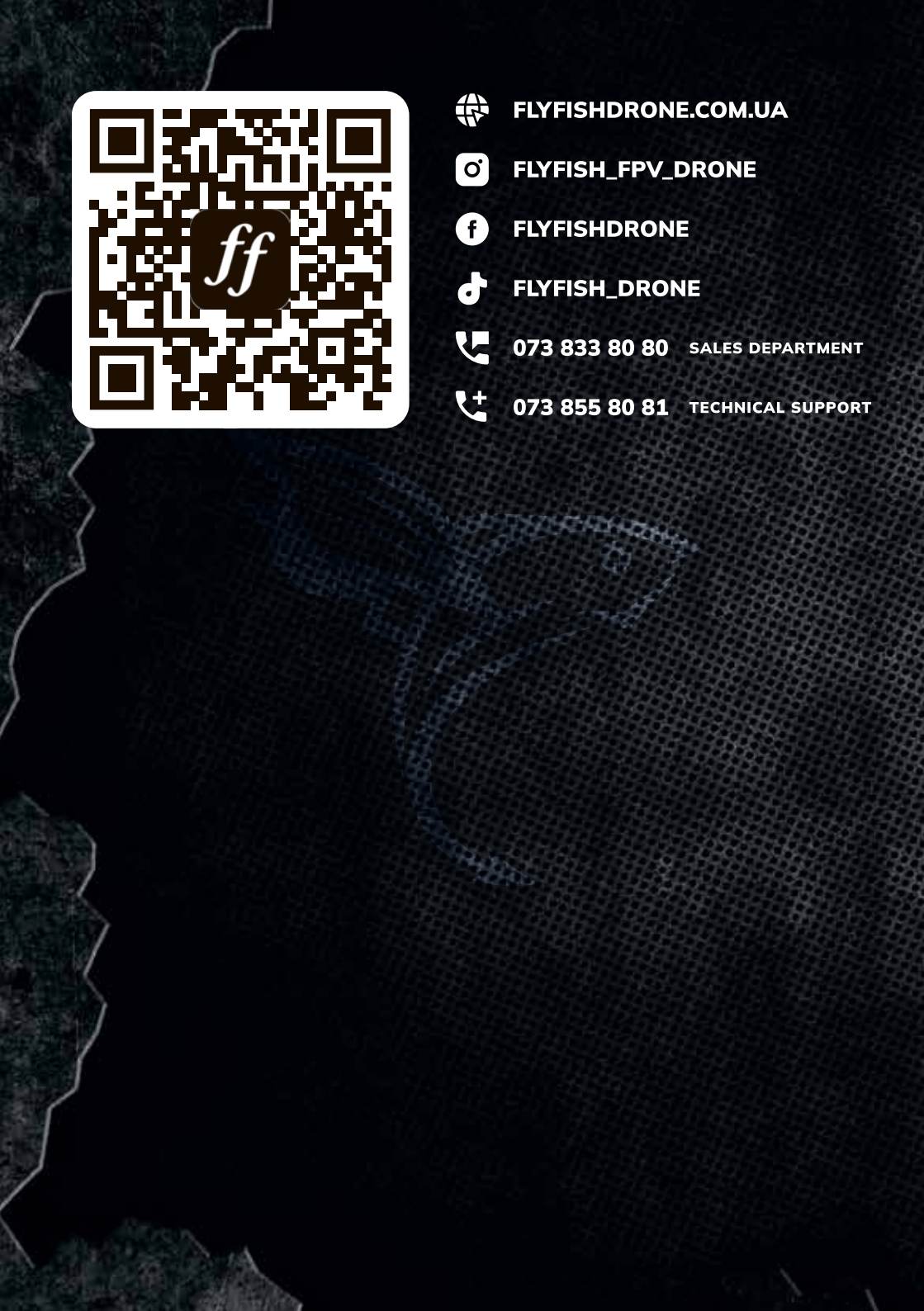
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