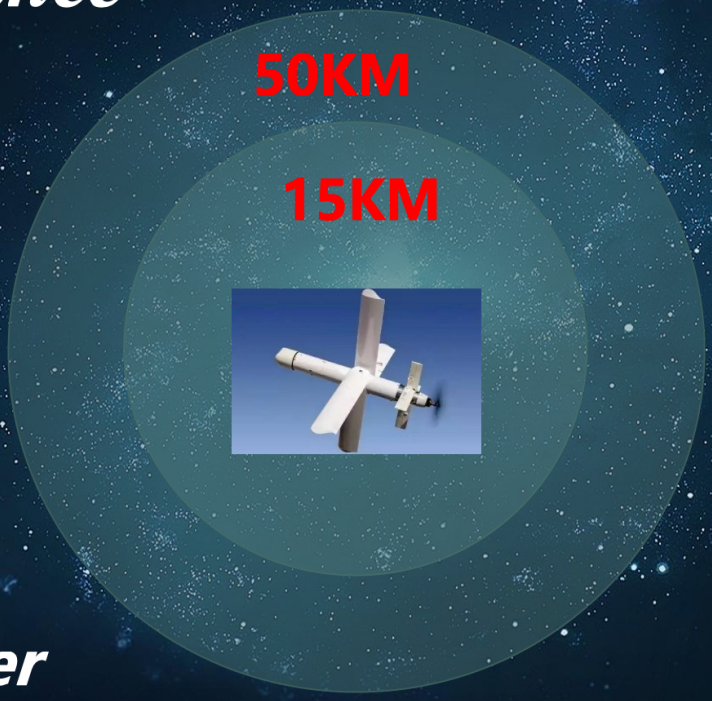
H13 Individual patrol drone

Gives individual soldiers the ability to fight howitzers

Long Distance



50KM Target Select:
Guided by pictures after deep learning

15KM Target Select:
Manual Locking

New rulemaker

H13 Manpack Portable Loitering Munition System

The H13 Loitering Missile is a short-range, lethal/anti-materiel weapon system that meets the complex requirements of the modern battlefield for precision strikes in the harshest environments such as densely populated urban areas, open fields and mountains.

H13 Manpack Portable Loitering Munition System

The H13 hovers over the target in search of it and strikes at the right moment, even if the target appears only momentarily. When the mission is cancelled, H13 will terminate the attack and return to the cruising state, re-attacking the target when the time is right.

Highly Operable Combat System

The H13 incorporates a state-of-the-art lightweight dual-beam optical seeker (visible and infrared) for non-line-of-sight combat day and night. While maintaining accurate tracking of static and moving targets. The H13 employs a sophisticated navigation method that can operate in environments where GPS is blocked. Suitable for deployment from air, land and sea, with the characteristics of high-speed flight and low-speed loitering. The system has the capability of autonomous, semi-autonomous or manual operation (human-in-the-loop attack capability to avoid collateral damage) depending on mission requirements, and is suitable for all military echelons.

Easy to deploy and operate

The H13 loitering bomb is light in weight, can be carried by a single person, and is easy to deploy. A single person can complete the deployment within 2 minutes.

Main parameter

Drone weigjt	3.5kg
Launcher weight	4kg
Duration	45min
Flight speed	150km/H
Max Fight Distance	50km
Max cruising altitude	700M
Flight mode	Remote Control/Autonomous Flight
Warhead weight	1KG
Pod	Visible light/Infrared
Find target distance	1km
Hit accuracy	CEP≤1M
Power mode	Electric propeller
Launch method	Barrel emission (no smoke/light/ sound)
Attack method	Remote Control/Lock Image Attack
Carrying method	rucksack carry
Dimension	792x116x116mm

System composition

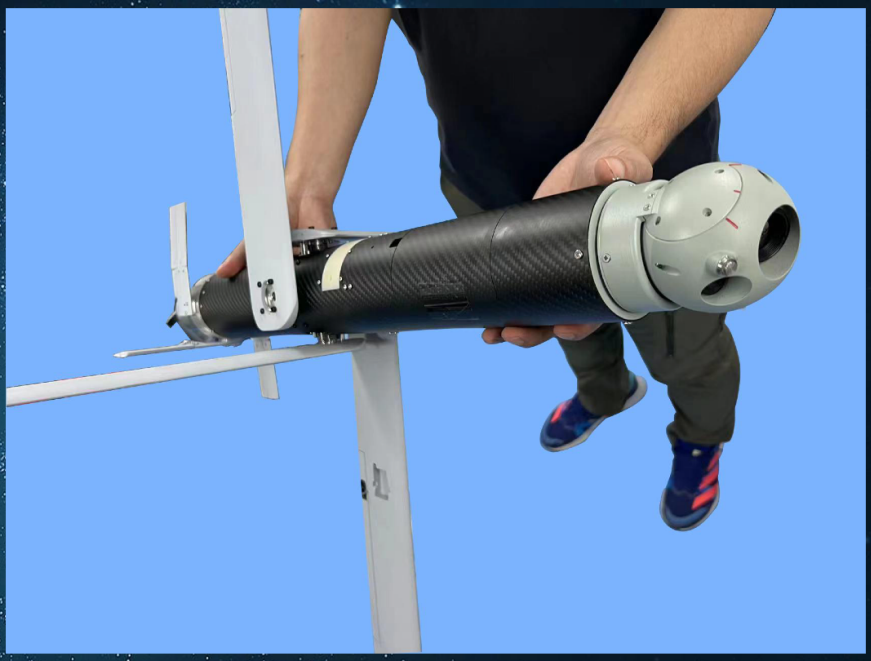
Drone

Launcher

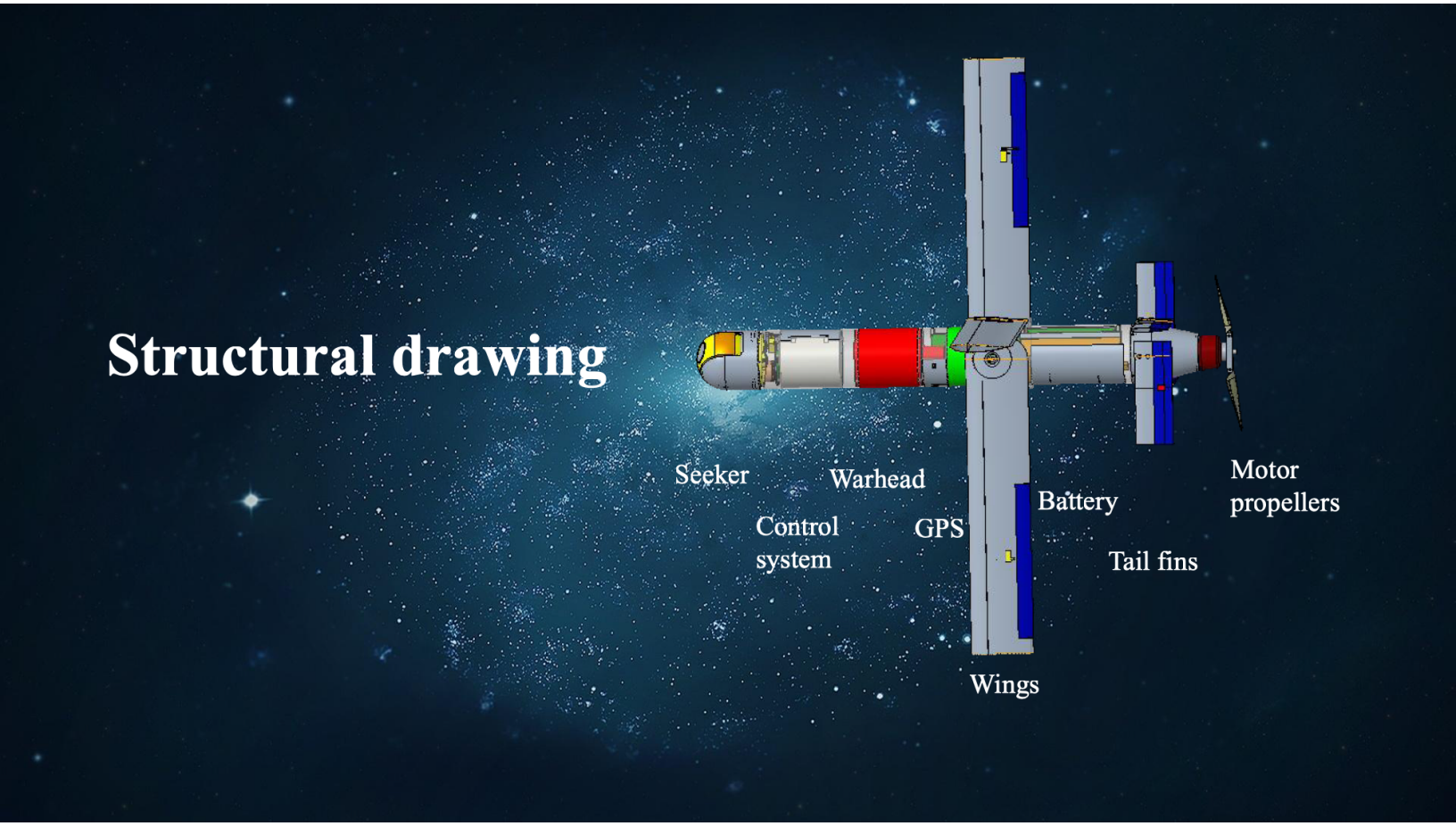
Controller

Deep
Learning
Software
Workstation

3.5kgs
Light Weight



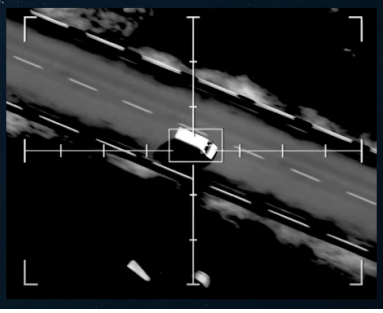
Structural drawing



Dual optical (Thermal & CMOS) Seeker Fight in the Day & Night

Lock Tracking Image in the night

Visible CMOS



Parameter

System parameters		
Maximum Rotational Angular Velocity	**Azimuth**	**≥60°/s**
	Pitch	**≥60°/ s**
Maximum rotational angular acceleration	**Azimuth**	**≥100°/s²**
	Pitch	**≥60°/ s²**
Rotation range	**Azimuth**	**0° ~ + 360°**
	Pitch	**-80° ~ + 50 °(horizontal is zero, up is positive, down is negative)**
Angular Accuracy Resolution		**≤2mrad**
Stable accuracy		**≤1 mrad**
Infrared		
Detector type		VOx detector
Resolution		**640x512**
Pixel pitch		**12um**
NETD		**≤30mk**
Working wavelength		**8-14um**
Focal length		**19mm**
FOV		**22.8°x18.3°**
Image maximum frame rate		**≥50fps**
CMOS low light camera		
Sensor type		**CMOS**
Resolution		**1920x1080**
Pixel pitch		**≤4um**
Lens		**16mm**
FOV		**26.9°x15.3°**

Parameter

Video recognition and tracking board	
recognition pattern	automatic
Recognition rate	94%
Identification method	Neural Network Deep Learning
Track window position	Automatically move to any position within the field of vision following the target
Target selection	manual lock
Minimum target size	3x3pixels
Trackable target size	≤3mx4m
The maximum supported resolution of the camera	1920x1080,30fps
Minimum SNR	4dB
Tracking speed	≥80pixels/frame
Physical properties	
Dimension	Φ75x127mm
Weight	≤500g
Color	Sky blue
Environmental indicator	
Working temperature	-40℃~60℃
Storage temperature	-45℃~65℃
Protection	IP66
Power consumption	
Input voltage	DC14V-28V
Stable power consumption	≤ 20W
Peak power consumption	≤ 10W

Seeker installation drawing