

SMARTBEE / MICRO UNMANNED HELICOPTER

智能微型无人直升机

Intelligent micro unmanned helicopter · 智蜂 / SmartBee

集成可见光与红外双光摄像头的微型飞行平台

A micro flight platform with visible-light and infrared cameras

150 g 微型机身，集成可见光与红外摄像头，支持室内定点悬停与避障。

A 150 g micro airframe with visible-light and infrared cameras, supporting indoor position holding and obstacle avoidance.

150 g	25 min	2 km
重量 Weight	续航时间 Endurance	通信范围 Communication range

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01 产品概述 Product overview



智能微型无人直升机系统成功克服了多旋翼无人机体积偏大、噪声显著、续航时间有限及巷道区域穿梭能力弱等缺点，实现了更强隐蔽性、更长航时与复杂狭窄环境的高适应性飞行。机体集成双光摄像头与先进机载 AI 模块，支持对人、车、建筑物等多类目标进行实时检测与识别，具备全天时远距离探测感知能力，可广泛应用于密闭或狭窄空间探测、应急搜救和反恐维稳等场景。「智蜂」作为当前微型直升机领域高度集成 AI 模块的领先产品，其智能自动识别率与准确率进一步提升「智蜂」在复杂实战任务中的可靠性和综合效能。

The Intelligent Micro Unmanned Helicopter System has successfully overcome the drawbacks of multi-rotor drones, such as their large size, significant noise, limited endurance, and poor maneuverability in narrow alleyways. It achieves enhanced stealth capabilities, longer flight times, and high adaptability in complex and confined environments. The aircraft is equipped with an integrated dual-optical camera and an advanced onboard AI module, enabling real-time detection and recognition of various targets, including people, vehicles, and buildings. With all-day long-range detection and sensing capabilities, it can be widely deployed in scenarios such as enclosed or narrow space exploration, emergency search and rescue, and counter-terrorism operations. As a leading product in the field of micro helicopters with a highly integrated AI module, SmartBee further enhances its reliability and overall effectiveness in complex real-world missions through improved intelligent auto-recognition rates and accuracy.

02 核心特点 Features

高集成
Highly integrated

- 北斗 / 光流 / GPS
  BeiDou / Optical Flow / GPS
- 室内定点悬停
  Indoor Position Holding
- 可见光 1280 × 720（录像、拍摄）
  Visible Light 1280 × 720 (Video and Photos)
- 红外 265 × 192（录像、拍摄）
  Infrared 265 × 192 (Video and Photos)

高性能
Strong

- 最大速度可达 6 m/s
  Maximum Speed up to 6 m/s
- 声压级 ≤ 50 dB（Φ5 m）
  Sound Pressure Level (SPL) ≤ 50 dB
- 抗风四级，小雨
  Level 4 Wind Resistance, Light Rain
- −20 °C 至 +40 °C
  −20 °C to +40 °C

高智能
Smart

- 具有避障功能
  Obstacle Avoidance
- 具有集群功能
  Swarm Function
- 具备智能识别
  Target Identification
- 支持算法训练
  Algorithm Training

易操作
Simple

- 通信可达 2 km
  Communication Range 2 km
- 单手 / 双手 / 程序控制
  Single-Hand / Double-Hand / Program Control

03 应用场景 Applications



场地救援
Search & Rescue

应急消防
Emergency

反恐侦察
Counter Terrorism

04 技术参数 Specifications

参数 Parameter	规格 Specification
长度 Length	**218 mm**
重量 Weight	**150 g**
续航时间 Operating Time	**25 min**
最大飞行高度 Maximum Flight Height	**110 m**
飞行速度 Flight Speed	**6 m/s**
抗风能力 Wind Resistance	**7 m/s（四级）** 7 m/s (Level 4)
通信范围 Communication Range	**2 km**
光学传感器数量 Number of Optical Sensors	**2**
夜视能力 Night Vision	**支持** Supported
避障能力 Obstacle Avoidance	**支持** Supported
控制模式 Control Method	**单手 / 双手遥控** Single- / Double-Hand Control
智能识别 Intelligent Recognition Capabilities	**支持** Supported
定位系统 Positioning System	**北斗 / GPS / 光流** BeiDou / GPS / Optical Flow



机头与双光镜头
Front and dual-spectrum camera



整机斜视图
Angled view



机身侧视图
Side view

05 系统配置 System composition

标配一
Standard Configuration 1

- 智能微型无人直升机
  Intelligent Micro Unmanned Helicopter
- 双手柄（可视一体化）
  Dual-Hand Controller with Display

标配二
Standard Configuration 2

- 智能微型无人直升机
  Intelligent Micro Unmanned Helicopter
- 单手柄
  Single-Hand Controller
- 显示终端
  Display Terminal

选配
Optional

- 携行装具
  Accessories
- AR 智能眼镜
  AR Intelligent Glasses













双光 · 智能 · 低噪 · 集群 · 长续航
EO/IR · Smart · Low Noise · Swarm Formation · Long Endurance