

Kestrel(G5.1) – Security Drone

- **Independent Flight Controller** (CIRC developed)
- **nVidia TX1 inside** (detection, recognition, and tracking dynamic objects)
- **Autonomous Flight** (takeoff, patrol, precision landing and recharging)
- **Multi-camera module** (RGB / Thermal Cam)
- **Redundancy** (Electrical power & Propulsion system)
- **Weather resistance** (IP54 and Beaufort scale – 6)

Item	Descriptions
Diagonal Wheelbase	756 mm
Weight	6.4 Kg
Smart Battery	6S LiPo, 22.8V, 16,000 mAh with BMS
Motor	High efficiency 3511 (400KV)
Propeller	High efficiency 15" CF
Hovering time	25 mins
Weather-proof	IP54
Multi-camera	RGB 8,5MP FLIR Boson(320x256)
Wind tolerance	Beaufort scale – 6
Working temperature	-10°C ~ 40°C



Drone G5.1 Base

- Automated lid opening and closing control
- IR beacon for precision landing
- Automated drone centering mechanism
- Smart autonomous contact charging
- Automated heating/cooling systems to keep normal operation
- Weather proof (Dust, Rain, Snow) – IP54
- Door jamming or any other self-damaging protection logic built-in
- Robust design and high durability of operation (>100,000 cycles)



Mechanical Spec.

Painting	White, high reflective paint
Dimension	160 cm(W) x 174 cm (L) x 84 cm (H, w/o foot)
Weight	160 Kg

Electrical Spec.

Power Supply Input	100V ~ 240V AC
Max Charge Current	16A
Smart charger	Control/read data via I2C; 1,000W with 5V, 12V, 24V, Flexible range 24.6V 5A ~ 35.6V 16A

Operating Spec.

Temperature	- 10°C ~ + 40°C
Weather-proof	IP54
Durability	100,000 cycles (open and close)

