

Anti-Drone System HIGH+MIGHTY SKYNET



HIGH+MIGHTY



Agenda

- Current issues caused by drones
 - HiGH + MiGHTY SKYNET spec and quality
 - SKYNET operation scenario
 - Solutions in the market for anti-drones
 - Contact HiGH + MiGHTY
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Current issues caused by drones

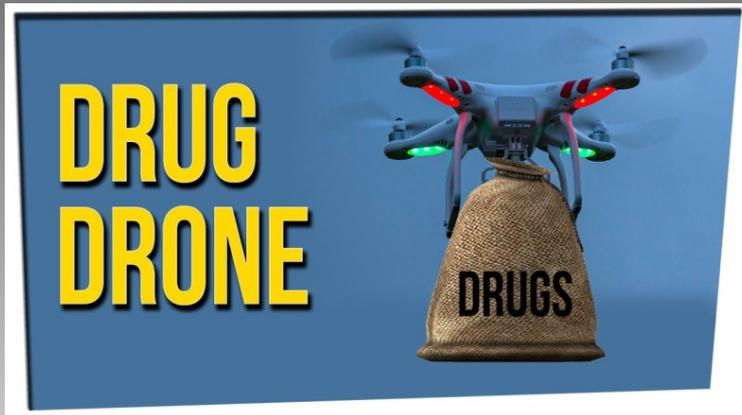


HIGH + MIGHTY



Cross Border Drug Smuggling

- Due to civil heavy-lift drone payload capabilities, using drones for drug smuggling has become increasingly popular
- It's getting not easier to control the drug smuggling at borders, especially for those countries who has many neighbor countries.



Airport Security



- Camera drone pilots irresponsibly fly in civilian freight aviation zones is one of the main threat to airport security
- Unauthorized drones might cause inevitable problems at restricted area



Privacy Intrusion

- Stops private inspectors from using camera drones to inspect or investigate
- Easy accessible of drones causes severe privacy intrusion
- Privacy exposure of an important figure might impact different-level security concerns



Counter-Terror Attack



- Using drones to carry explosive material is possible with today's technology



aerial photography, message/substances delivery – cause national security

- State-owned prisons, nuclear power plants, petrochemical plants, power companies, defense department, base camps, refineries, smart grids, etc...
- Aerial photographing above spots or deliver messages/substances at these spots would increase the difficulties for law enforcement officers
- Drones hit power/water/electricity plants by accident will put the country in danger



Recreational life is threatened



- Drones fly into national park to influence wild life
- Drones fly into sports event like skiing/football/basketball
- Turbine on cruises would be damaged and cause property loss



HiGH + MiGHTY SKYNET spec & Quality



HiGH + MiGHTY



HiGH + MiGHTY SKYNET Specification

<p>SKYNET spec</p>	<ul style="list-style-type: none"> • Weight : 5.7Kg (Body Only)+9.8Kg(Backpack), the lightest solution • Diagonal Size : 45(W) x 32(L) x 23(D) CM • Working Voltage : 16.8 +/- 0.1V • Working Runtime (Full Load) : 2 Hours • Standby Time : 15 Hours • Charging Time: 90 Minutes • Working Frequency : GPS/GNSS 1.450 GHz - 1.650 GHz • Working Frequency : Video/Control 2.380 GHz - 2.483 GHz • Working Frequency : Video/Control 5.725 GHz - 5.825 GHz • Max Operation Range : Up to 2 Km (Unobstructed, free of interference) • System RF output power: 1.5GHz = 52 EIRP / 2.4GHz = 49.9 EIRP / 5.8GHz = 49 EIRP • Operation Temperature -10°C ~ 60°C
<p>Battery spec</p>	<ul style="list-style-type: none"> • Chemistry : Lithium-ion • Mount Type : V-Mount • Capacity : 150wh (14.8V, 10.3Ah) • Weight : 900 Gram • Operation Temperature -10°C ~ 60°C
<p>Antenna spec</p>	<ul style="list-style-type: none"> • Mount : Picatinny Rails MIL-STD-1913 Rail • Diagonal Sizes 1.5GHz Antenna : 55(L) x 12(H) x 9 (W) CM • Diagonal Sizes 2.4GHz Antenna : 60(L) x 15(H) x 5 (W) CM • Diagonal Sizes 5.8GHz Antenna : 34(L) x 6.5(H) x 6.5 (W) CM • Antenna Types : Directional Antenna • Gain : 1.5GHz 13dBi / 2.4GHz 12dBi / 5.8GHz 16dBi • V-Plane : 10 Degree



HiGH + MiGHTY SKYNET Quality Assurance

Crosshair	<ul style="list-style-type: none">•3 optical crosshairs with 2-color (red/green) selectable•5-level brightness switchable
Mode	<ul style="list-style-type: none">•Single mode 1: Disable GPS, GNSS – stop the drone flying back to the start point, force a targeted drone lost auto-pilot and positioning feature•Single mode 2: Disable remote control/video transmission, 2.4GHz & 5.8GHz – disconnect remote function and stop video transmission•Dual mode: Disable both GPS, GNSS & remote/video transmission: 2.4GHz & 5.8GHz – disable GPS, disconnect remote control and stop video transmission at the same time and force a targeted drone to land (shot a drone down)
Quality Assurance	<ul style="list-style-type: none">•Designed in Taiwan/Made in Taiwan•Field test on distance to disable GPS function: 3.5km•Special design on anti-jamming antenna and shielding, only to stop the unauthorized drones, but no impact to other irrelevant equipment/units!! Or it might affect the safety of the public and the damage of the property!!•Two mainstream remote brand: Futaba/JR are also controllable•Patent filed
Great deal	<ul style="list-style-type: none">•Compact and light (one-man operation)•Easy to use, click and stop the drone immediately•Long operation range: up to 2km•No damage caused to the drones, they will automatically fly back to the original spot or vertically land on spot•High quality and stable performance

Solutions in the market for anti-drones



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Solutions in the market for anti-drones

- Trained eagles to snatch camera drones (animal rights violated)
- Heavy-lifted drones with a net to catch intrusive drones (smaller drones actually fly faster than heavy-lifted ones)
- Anti-drone bazooka – compressed-gas gun with net + parachute designed to physically stop drones hovering around (Height-limited; easily to miss-out when targets move fast)
- Firearms – physically damage civilian property
- One of a kind – SKYNET technology (patented)



Comparison table of existing Solutions

	Eagle	Heavy-lifted drones with a net	Anti-drone bazooka	Firearms	SKYNET
Weight	depends	depends	10kg	depends	5.7kg 
Dimension	depends	depends	31(W) x 130(L) x 28(D) cm	depends	45(W) x 32(L) x 23(D) cm 
Range	NA	NA	100m	depends	Up to 2km 
Damage the target	possible	yes	possible	yes	no 
Cost	can't calculate	depends	expensive	depends	cost competitive 
Others	Need to train eagles, animal rights violated	Heavy-lifted drones are not faster enough to catch smaller ones	Need to buy refill bullet (net + parachute); Need reload time: 8s; Height limited	Physically damage civilian property	Easy to use; No reload time needed 