
NIGHTINGALE
SECURITY®
THE SMARTEST EYES IN THE SKY

INTRODUCTION

Nightingale Security provides Robotic Aerial Security™ for corporations. Our comprehensive service consists of drones, base stations and powerful mission control software—working together to provide autonomous, 24x7 physical security using real-time aerial surveillance cameras and data gathering sensors.

OUR PROMISE

- We'll provide increased security capabilities and labor force enhancement.
- We'll produce an impressive ROI.
- We'll take care of everything needed to keep the service operational.

DEPLOYMENT SCENARIOS

AUTONOMOUS THREAT RESPONSE

When there is an alarm, the system automatically dispatches a drone to the alarm location and streams live video to the security team.

SCHEDULED AUTONOMOUS PATROLS

Set repeatable, autonomous patrol missions based on day, time, path, altitude, hover duration, camera direction and other mission details.

MANUAL SURVEILLANCE MISSION

During a major event such as an oil spill, chemical leak or fire, you can manually dispatch a drone to monitor events as they unfold on the ground.

ADVANCED SECURITY

C4AI

Command, Control, Communication, Computing and Artificial Intelligence. The Mission Control app is a communication hub that displays live video and alerts from drones, allows your team to chat via voice-to-text capabilities and provides access to incident reports.

REDUNDANCY

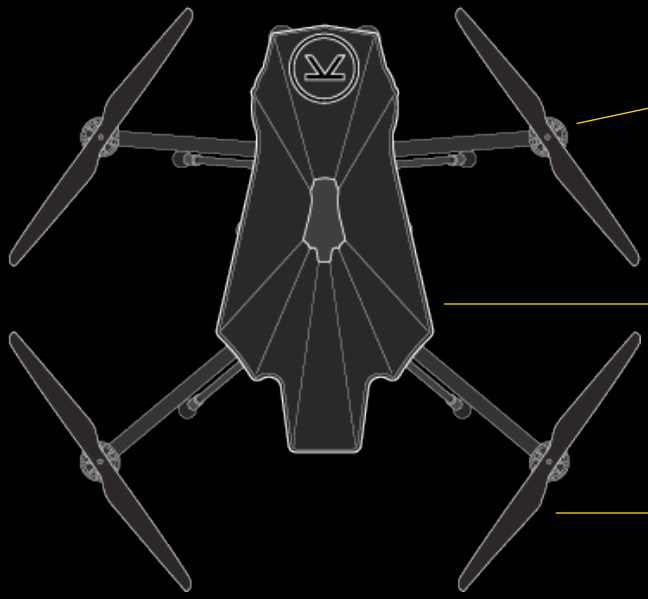
Our drones and base stations communicate and collaborate. If a drone is on a mission and its battery runs low, another drone will autonomously deploy and finish the mission—allowing the first drone to safely return to the base station and recharge.

ALWAYS ON DUTY

Nightingale Security drones and bases stations are installed on rooftops and other secure locations around your facility. And like any self-respecting robot, they never switch off—so they're always on duty and ready to be deployed.

BLACKBIRD

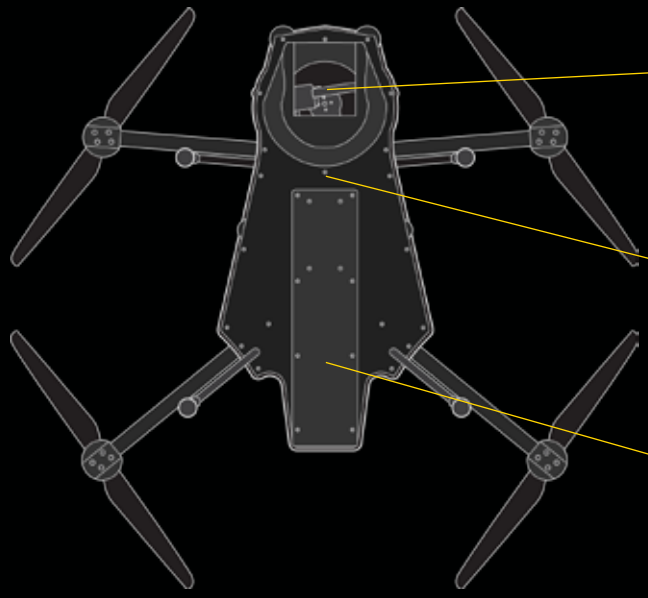
The name of our drone pays homage to the histroic SR-71 Blackbird of the United States Air Force—a long-range strategic reconnaissance aircraft.



BRUSHLESS HEAVY-LIFT MULTI-ROTOR
An extremely efficient and powerful motor with solid-core copper windings provides failure free operation in extreme climates.

CARBON FIBER HONEYCOMB CHASSIS
A carbon fiber composite and honeycomb design provide a strong and lightweight frame for reliable industrial use.

TUNED PROPULSION SYSTEM
Precision balanced carbon fiber blades are tuned to maximize motor efficiency and a regenerative breaking system captures energy to recharge the battery.



HIGH PRECISION STABALIZING GIMBAL
A low-power consumption gimbal is enclosed in a carbon fiber dome. Standard sensors: IR tracking camera and an HD1080P RGB camera. Optional sensors: Lidar, Thermal, Hazmat.

LIGHTWEIGHT SONAR SENSOR
A sonar sensor embedded in the drone chassis enables precision landing and altitude control.

LONG-LASTING QUICK-CHARGE BATTERIES
A high-capacity, dual-battery system provides autonomous charging with an integrated real-time monitoring system for safe and reliable charging.

CORPORATE APPLICATIONS

Our autonomous Robotic Aerial Security (RAS) service offers numerous innovative, capability expanding use cases and applications for various industries including: Oil and Gas, Critical Infrastructure, Solar Farms, Corporate Facilities, Power Plants, Manufacturing Facilities, Data Centers, Border Patrol, Search and Rescue, amongst others. If you have something to secure, our Robotic Aerial Security service can do it cheaper, faster and better than your current solution.


SECURITY
OFFICER

MISSION CONTROL

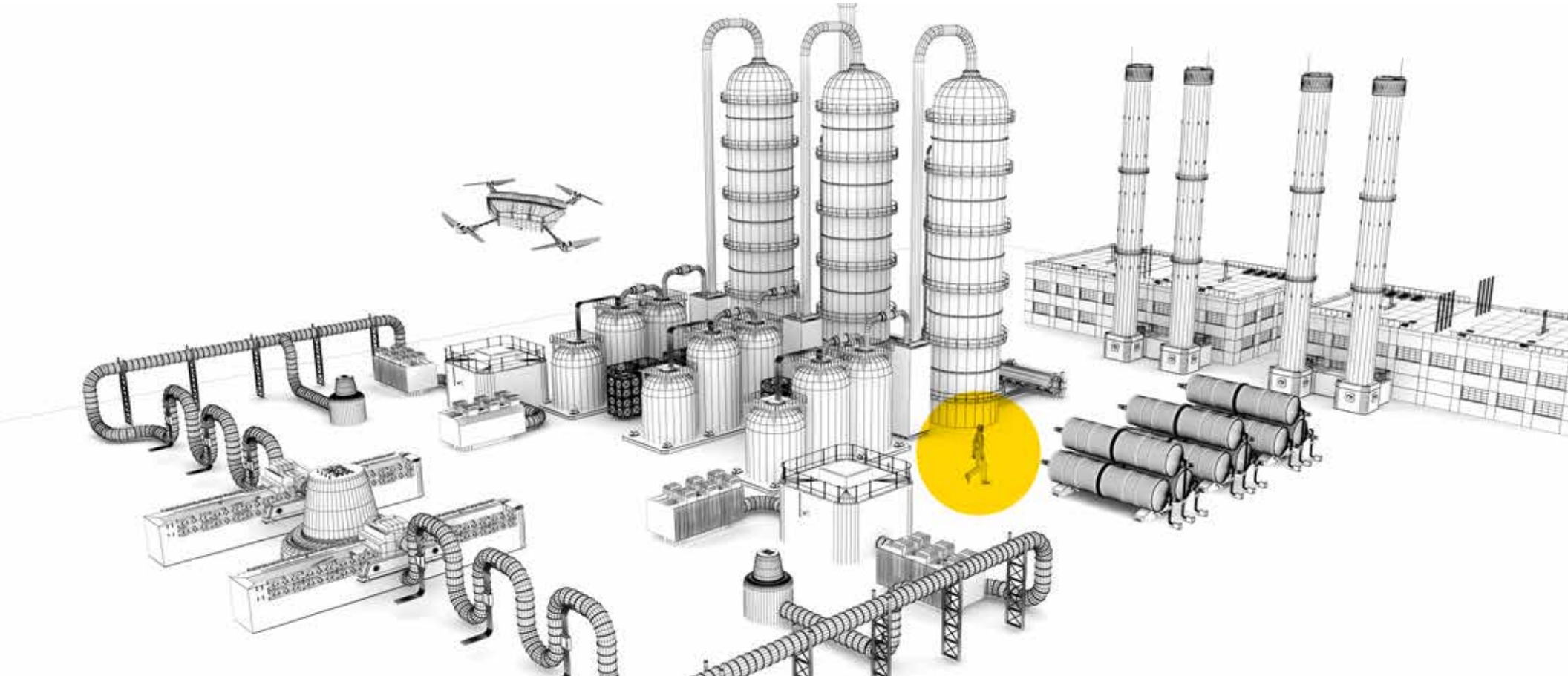
Our patent pending software was developed by specialists of SpaceX, NASA, and Willow Garage. Our end-to-end system provides Autonomous Remote Operations (ARO) so no human intervention is needed to maintain operational continuity 24x7. Multi-drone squadron operation is powered by algorithmic task assignment and cooperation combined with proprietary Relay-to-Drone-to-Drone (R2D2D) capabilities.

- Control everything, anytime, from anywhere in the world
- Watch live video feeds from multiple drones
- Configure mission details—flight path, hover duration, etc.
- Intelligent Path Planning (IPP)
- Simultaneous video streams and data sensor information
- Command all drones at multiple facilities
- Object recognition and following
- Manually control drones, cameras and sensors
- Static obstacle avoidance (dynamic obstacle avoidance in beta)
- Mission Control is accessible on PC and mobile devices

ROBOT AS A SERVICE (RaaS)

Here's how it works. For starters, customers don't buy, own or maintain anything. Nightingale Security provides a Robotic Aerial Security subscription service based on a monthly fee / annual contract—we call it Robot as a Service (RaaS).

Depending on your facility requirements, Nightingale Security installs, integrates and maintains all hardware and software. We provide comprehensive Maintenance, Repair and Upgrade (MRU) support which includes everything needed to keep the system operating smoothly and continuously. We'll keep you up-to-date with all the latest features and system upgrades and we're open to partnering with you to develop additional applications for your specific needs.



30	45	60	5
MINUTES PER FLIGHT	MINUTES TO RECHARGE	TOP SPEED MPH	SENSOR OPTIONS

FEATURES

- Designed specifically for security applications
- Stationed on-site for rapid response to alarm events
- Autonomous takeoff, patrol, landing and recharging
- Routine, pre-scheduled flight missions
- Access Mission Control app from PC and mobile devices
- Stream live video feeds to multiple people simultaneously
- Multi-sensor capable (Visible, IR, Thermal, Lidar, Hazmat)
- Expandable platform allows integration of new applications
- Autonomous navigation to the point of interest
- Object recognition and following
- Drone-relay capability for extended or persistent monitoring
- Retrieve data and video 24x7 from our secure data storage
- Integrates with existing VMS, alarm sensor and alert systems

DRONE SPECS

- Flight time: 30 minutes (fully loaded with sensors)
- Battery charge time: 45 minutes
- Operational radius of 4 km
- Long-range encrypted WiFi (~2km) or cellular-based C3 (Command, Control & Communication)
- Gimbal mount camera sensor stabilization
- Video stream formats supported: Adobe HDS, RTMP, HLS, Microsoft Smooth, MPEG DASH, RTSP/RTP
- Allows sensor swapping for additional capabilities
- Precision landing for automated base docking/charging
- Dustproof and Weatherproof (rain, snow)
- Dimensions: 96 cm wide x 80 cm long x 25 cm tall

BASE STATION SPECS

- Rooftop mountable with Unistrut Metal Framing System
- Automated lid opening and closing
- IR landing beacon and drone centering mechanism
- Powerful internal PC supports OTA updates and allows for future extensibility
- Autonomous inductive charging of drone
- Operating voltage: 24V DC / 110V AC
- Cellular, WiFi or Cable network connectivity
- Dustproof and Weatherproof (rain, snow)
- UPS backup power for emergency operations
- Sensors for remote monitoring of base station health and base station surroundings
- Dimensions: 152 cm wide x 152 cm long x 91 cm tall

CONTACT US FOR A FREE DEMO

Nightingale Security
140 S Whisman Road Unit B
Mountain View, CA 94041

USA 415.796.6464
EU +32 473 86 9797
demo@nightingalesecurity.com
www.nightingalesecurity.com

ENGINEERED IN THE USA