Mechanical Engineer:

About Black Sage
We are a Counter Unmanned Aerial Systems (C-UAS) integrator, serving the United States and our foreign allied governments. Our mission is to keep civilians and military safe from the fastest growing threats of our time by solving time sensitive problems in national defense and political and economic terrorism.

We make rapidly evolving, layered C-UAS systems which provide persistent protection across varied threat environments and mission sets. We take on the rigorous task of trialing, fielding and developing the C-UAS kill-chain to ensure customers receive the best of breed sensors, effectors and systems for their mission.

Job brief
Black Sage is looking for a Mechanical Engineer to support our Hardware Integration team. You will support Black Sage’s operations supplying high-precision machined components in the Counter UAS industry. This position works closely with internal teams, customers, and suppliers to generate solutions to complex challenges. You will determine the forces and thermal environment that a product, its parts, or its subsystems will encounter. You will design components for functionality, aesthetics and durability and determine the best manufacturing approach that will ensure operation without failure.

Responsibilities
Special functions of this job include:
- Make quality and design change decisions
- Collaborate with others to define and improve standard work methods
- Research new materials and processing methods and become well-versed in metallurgy and materials behavior
- Define, coordinate/conduct process improvement activities using Design of Experiment methodology or other related methods
- Have working knowledge of Quality tools such as FMEA (Failure Mode Effect Analysis), Design for Manufacturing, HALT Testing (Highly Accelerated Life Testing)
- Produce failure analysis and other documentation for parts and processes for consumption by both internal and external customers
- Knowledgeable of drones, radars, cameras, sensors and other related equipment

Requirements
- 10+ years relevant experience
- High attention to details
- Understand and promote continuous improvement activities
- Experience with high-precision machining methodologies
- Able to work in a dynamic and fast-paced environment and able to manage multiple projects and prioritize time appropriately to meet all client and internal team milestones and deliverables
- Skilled in SOLIDWORKS or possess the ability to learn
- Understanding of drawing, 3D modeling, mechanical drafting for subcontractors and customers, and 3D printing.
- Knowledge of manufacturing processes: waterjetting, plasma cutting, milling, lathing, welding, powder coating, anodizing, and painting.
- Understanding of how sensors and effectors function and their relations to design and positioning of mounted sensors.
- Understanding of electrical mechanics.
- Familiar with ISO quality systems or AS9100 requirements
- Ability to obtain a DoD security clearance
- Basic knowledge of networking and drone piloting (preferred)
- Bachelor’s degree in an Engineering field (Mechanical Preferred)
- Licensed Professional Engineer (Highly desirable but not required)