

Federal Robotics

POWER TRANSMISSION LINES

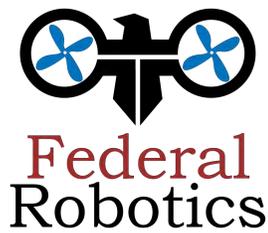
ASSET MANAGEMENT

INSPECTION & DOCUMENTATION



Federal Robotics
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www.FedRobot.com



Company's Experience

Federal Robotics is a one stop location for all your commercial unmanned aerial systems (UAS) aerial surveying/ inspection and photography needs. We use both quadcopter and fixed wing aerial platforms depending on the application. The FAA has issued Federal Robotics a 333 exemption, which gives us the legal permission to conduct commercial aerial flight services. Our UAS record both still photos and video photography at Ultra High Definition 4k or 1080p HD (non- multispectral). We deliver close-quarter structural civil engineering aerial inspections that save time and money while increasing safety and enhancing knowledge of difficult or dangerous access areas of structures. Unlike planes and helicopters, where the costs quickly mount, UAS allow us to capture breathtaking aerial photography shots quickly and inexpensively. We own a fleet of high quality UAS, have a staff of experienced FAA certified airmen, and we are fully insured.

U.S. utility companies have begun to see great potential in using drones to do the dangerous job of inspecting power lines and transmission towers. UAS Power line inspection services can be a vital time and money saving component of any utility company's inspection processes. With UAS technology you can now inspect your assets live, allowing you to focus more attention on repairing identified problems rather than using up valuable circuit outage time for fault finding. We'd love the opportunity to help you improve your maintenance regimes, reduce costs and improve safety. Power line inspection involves examining the pylons and their high voltage insulators. Even the connecting screw must be intact. This process is increasingly being performed by a UAS using photography and thermography. Equipped with the required cameras, for the inspection of specific electric power lines and poles, our wide range inspection sends real time footage and data to the operator which can be immediately viewed and saved for later reviewing.

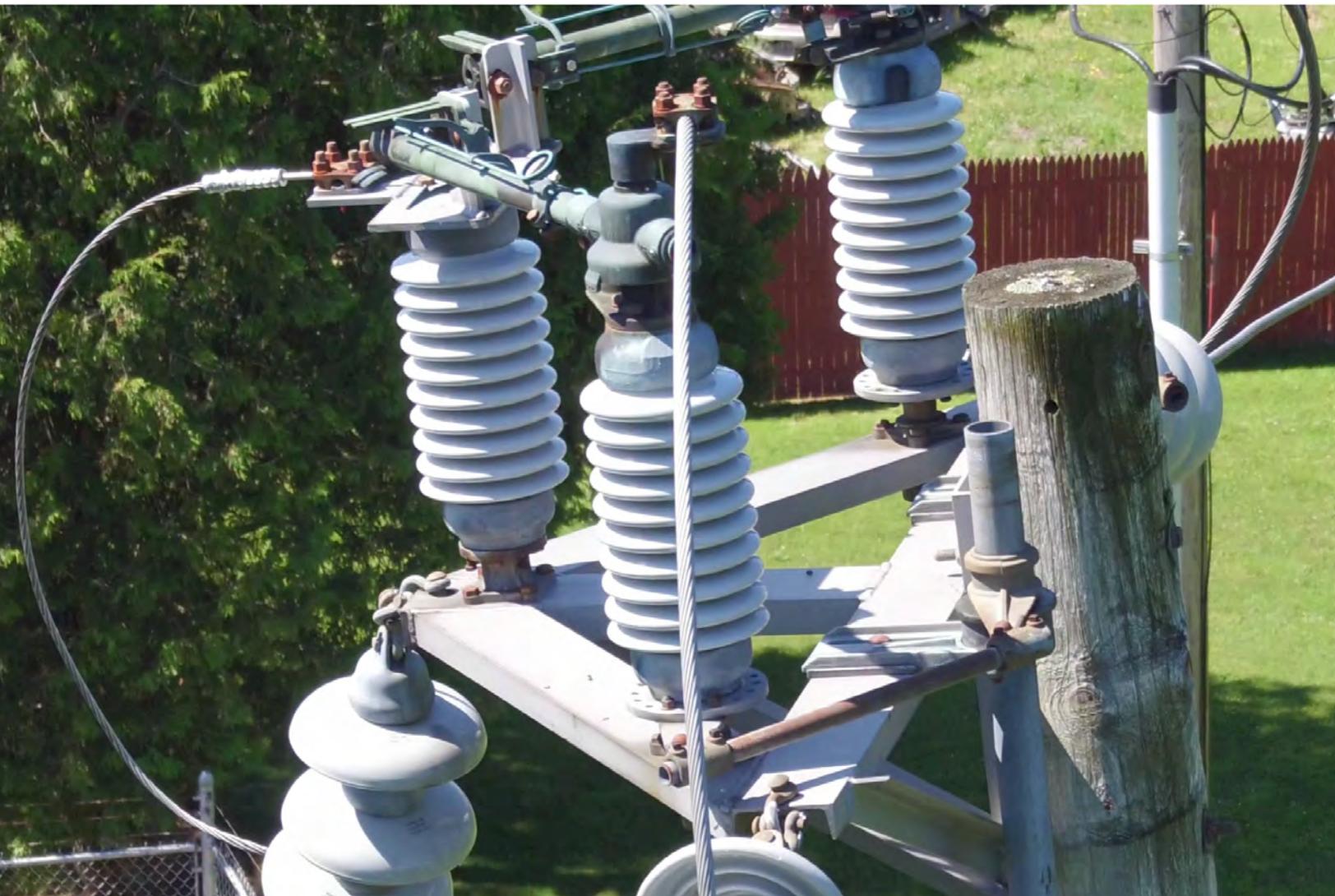


Federal Robotics has been involved in deploying UAS in the power transmission industry since 2015. We are established in the industry and have worked with utilities, municipalities, and government agencies. Our team has a deep understanding of the industry and its requirements.

Power Transmission Line Inspections

Advantages of using UAS systems

- Significant cost reduction compared to helicopters, industrial climbers, or cherry pickers
- Additional savings because the high-voltage power lines do not have to be shut down
- Reduction of inspection time by using a drone
- Improved quality due to high resolution images from optimum perspectives
- Increase of safety for inspection staff
- Detection of damages after storms etc.
- Detailed analysis in case of malfunctions
- Comparison of power lines over time
- Pre-maintenance inspection ensures optimal resource allocation
- Systematic, consistent and unbiased reporting



Deliverables-Output Resolutions

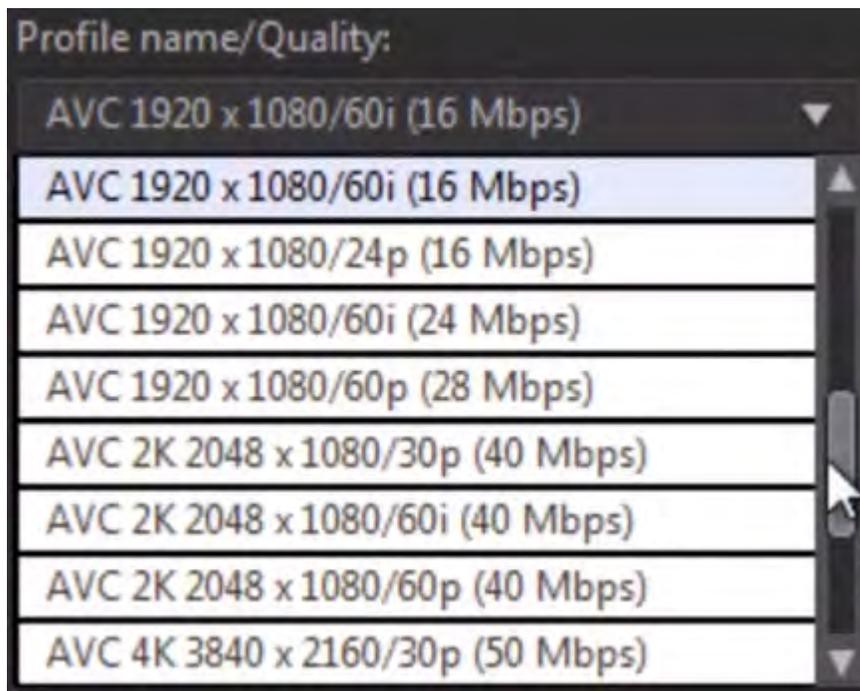


Record at 4k - 4096×2160 (24fps) or HD - 1920x1080 (60fps)

24MP photographs

Video Output Files:

AVI/ MPEG-2/ Windows Media/ Quick Time/ H.264 AVC/ H.265 HEVC/ XAVCS





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Deliverables

Customers are given the raw 4K video feed from the drone.

Customers are also given post edited video footage.

All raw feeds & post edited video footage are saved on Federal Robotic servers for 2 years at no additional cost.

Data can be delivered on a variety of media: Thumb Drive, Disc, etc.

Federal Robotics provides the customer with a 4K streaming media player that has a HDMI output that can be connected to a monitor or TV.

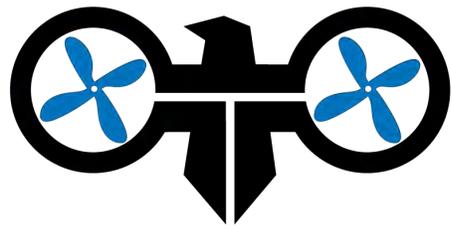


**64 Bit
2.0GHz**



 **KODI**
Fully loaded





**Federal
Robotics**

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