



## High-voltage overhead power line precision inspection drones

capable of nonstop operation - sky tram method  
(using power harvesting and TV White Space)



## Current of OPL inspection

The annual labor cost of overhead power line (OPL) inspection in major countries is estimated to total around USD 250 BIL. Furthermore, there are many recorded accidents fatalities during OPL inspections. 66.3% of OPL cannot be maintained manually, and 83% of open circuit faults occur at 154kV. The usual OPL inspection method is through ground check, robot and camera drone which can cover around 5 ~ 6.5 km in a single day.



## In the Feature, OPL inspection

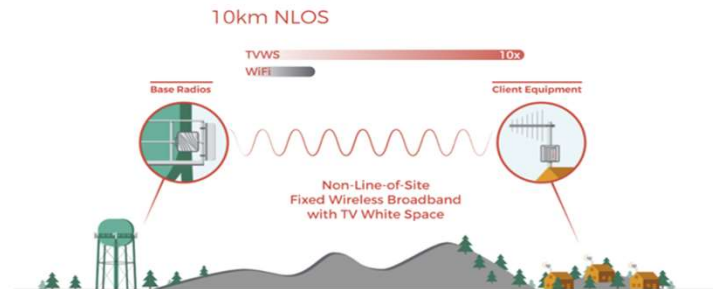
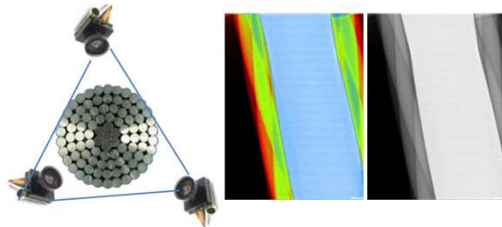
The concept of Drone is a hybrid of high voltage drone manufacturing technology and magnetic harvesting technology to create a drone that travels on a power line like a sky tram. The propellers of drones are used to maintain its balance, while Tolenoïd C<sup>®</sup> product generates power from the power lines to provide an endless energy to the drone thus enabling drone to carry out its duties without needing to recharge. By combining the three technology(w/ TV White Space; Super Wi-Fi solution), we have created a new type of high-voltage OPL inspection drone.



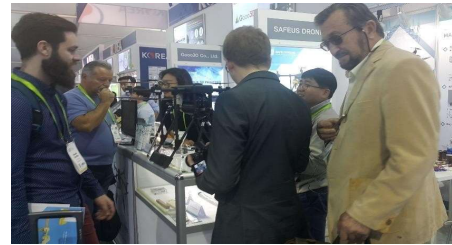
By using inspection drone, a product integrating the next generation technology from Drone company, Tolenoid C<sup>®</sup>(Power supply solution), and TV White Space(Super Wi-Fi solution) you can dramatically reduce the time, cost, and hazards in OPL Inspections.

- Operating on high voltage OPL without any risk of short-circuit and damage
- Insulation to protect drone against high voltage electricity & shielding against magnetic field
- Inspection operating hours extended (over 30km per day) through Ferraris energy harvesting module
- Closed-up inspection of inside and outside of OPL, precision inspection with optical, X-ray, fiber optic cameras
- Point marking / cleansing / anti-icing / coating to extend power line lifecycle
- Big data collection by TV White Space(Super Wi-Fi Solution)
- For a better Wireless drone charging station understanding, see the video description below.

<https://youtu.be/q77f2fnEac4>



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