

Existing robotics  
in operations



Lightning Protection System

Fast and precise LPS inspection to find damaged receptors (20% damaged on average). Possible to perform full-circuit test.

Speed: 2-5 turbines per day

► [View more](#)



Drainage Hole Cleaning

Excess condensation water is collecting in blades. The drainage hole becomes clogged and if not cleaned, it can deform the blade or explode in case of lightning strike.

Speed: 2-5 turbines per day

► [View more](#)



Blade Cleaning

Dirt, algae and resin create a rough surface on the blade. This results in a loss of annual energy production of up to 7%. Aeronex cleaning robot removes dirt effectively.

Speed: 2 turbines per 3 days

► [View more](#)



Tower Cleaning

Oil spills on towers are a common hazard. It ruins the appearance of a wind park. Unique tower cleaning system offers effective results with biodegradable detergent without spilling on the soil below.

Speed: 1 turbine per day

► [View more](#)



Blade Internal Inspection Crawler

Avoid costly repairs or blade replacements - perform regular internal inspections with interactive 360 degree crawler cars. Get video and LIDAR data with the option to measure damages or patches.

Speed: 2 turbines per day

► [View more](#)

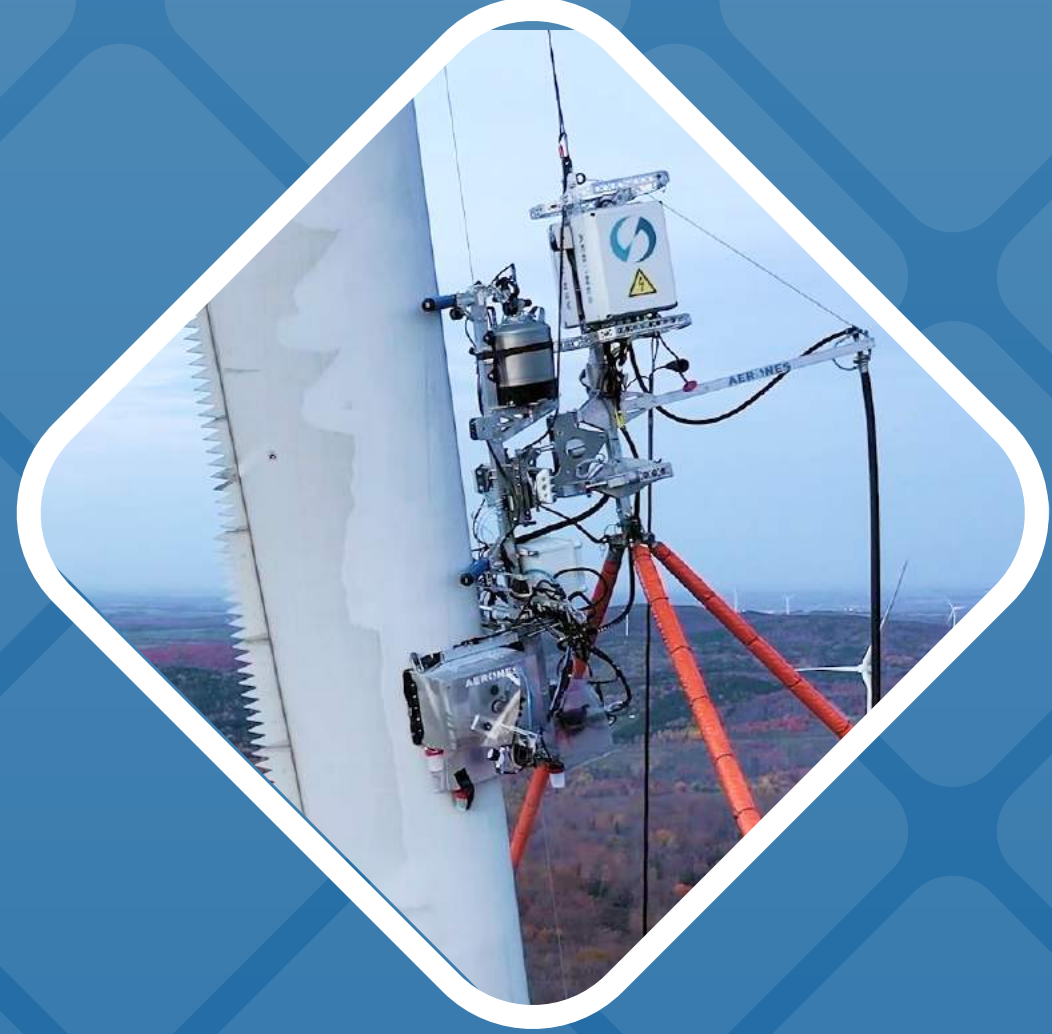


Leading Edge Repair -  
Surface Preparation

Protective leading edge tape (3M and others) can deteriorate and must be removed. Perform cleaning and sanding of the leading edge to easily remove the old tape.

Speed: 1 turbine per day

► [View more](#)



Ice-Phobic Coating Application

Ice-phobic coating is the effective tool to avoid freezing of the blades. Get a perfectly even layer of coating with the innovative robotic applicator.

Speed: 1 turbine per day

► [View more](#)

Robotics  
in development



Zero Downtime Visual Inspection

We have eliminated downtime for blade visual inspections by creating a camera that is following the rotation of blades and capturing very high quality telephotography.



Nacelle Cleaning

Nacelle is the hardest to access when cleaning the turbine. With the nacelle cleaning robot in production, we will offer to clean all of the wind turbines' exterior.



Thermal & Ultrasound Inspection

To offer a full package of inspections of the blades, there is work in progress for thermal and ultrasonic inspections that give the deepest insight in the health of the blades.



Leading Edge Painting

Rope access method is too slow and dangerous for such repair activities like painting. Our robotic painting technology will offer a fast, high quality painting job without putting people at risk.



Leading Edge Filler Application

To offer a full package of blade repairs, Aeronex is also developing a filler application tool for eroded and delaminated blades. With precise operations, leading edge repair will be a lot easier, faster and cheaper.



Robotic Offshore O&M Platform

As offshore wind farms are increasingly growing, their size makes it hard to properly service them. With the new robotic platform, Aeronex will be able to service the offshore wind turbine blades easily.



Digital Twin Platform

We want to empower wind park managers with deep insight into their wind parks. That is why we are working on offering a platform where each of the turbines and their blades are digitized with inspection data.