Power plant infrastructure inspected by robots

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By PennEnergy Editorial Staff

Source: Gecko Robotics

Gecko Robotics develops and operates robots to automate infrastructure inspections. Today,

Gecko is focusing on power plant inspections. Every year $12 Billion is lost due to these time-consuming inspections, driving up the cost of electric power across America. Gecko has developed wall-climbing robots that dramatically reduces outage time for inspections resulting in large cost savings for the plants.

In power plants, boilers are used to heat water into steam. Plants must shut down at least once a year to check for damage to the boiler. To do these inspections crews install 150 ft tall scaffolds and climb up the walls in search of damaged areas in need of repair. These inspections are slow, inaccurate and dangerous. A typical inspection takes several days, and every hour a power plant is down costs tens of thousands of dollars.

The Gecko solution is to send robots into these confined, dirty, and dangerous places. Gecko deploys certified inspectors equipped with Gecko robots to power plant sites. The robot climbs the boiler walls while autonomously collecting data about their condition. Using this method Gecko can complete an inspection seven times faster than any existing method. Damaged areas are evaluated in real-time via an online dashboard which enable power plants to make quick and targeted repairs.

Although inspection speed and superior data are important to power plants, Gecko's founders are motivated by the vision to eliminate death and injury in the workplace. This technology will allow power plants to run more efficiently thereby reducing the overall footprint of America's energy production industry.

Gecko's founders Jake Loosararian, Ian Miller, and Troy Demmer met at Grove City College where they began developing climbing robots began 4 years ago.

Video: Gecko Robotics Video