noema

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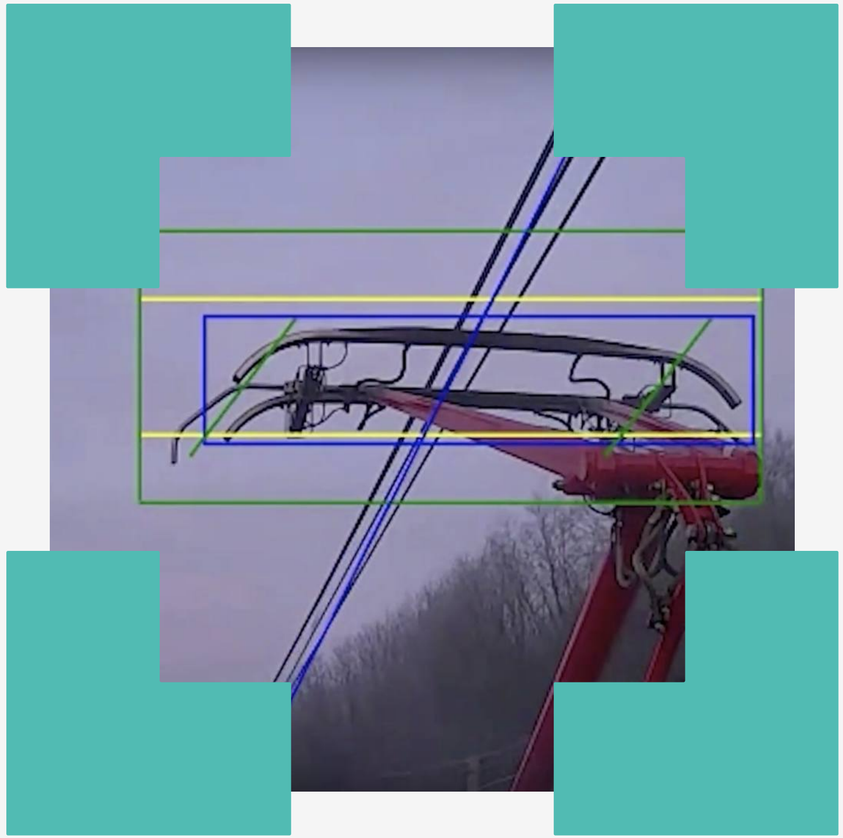
Pantograph Monitoring

A single delayed train costs $45,000 USD on average, and incidents of wire damage from pantographs can cost rail companies upwards of $1 Million USD annually. Detecting anomalies before damage occurs drastically reduces the costs of monitoring and maintenance for pantograph-equipped train systems.

Noema uses smart cameras and computer vision to monitor train pantographs, drastically reducing pantograph-related maintenance costs and overhead wire damage. The app automatically monitors the overhead wires and the pantograph head, checking for positioning and sparking.



Noema’s Pantograph Monitoring application automatically detects high-risk operation and sparking, reducing monitoring and maintenance costs, and preventing damage or danger to the train and passengers.

Features / Specs

- Works with different pantograph & train types
- Records and timestamps events automatically
- Variety of cameras supported
- Works in all light & weather conditions
- Accurately detects position in >99% of frames
- Easy configuration & use

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Automated, 24/7 monitoring

The app runs 24/7 and detects events with more consistency and accuracy than a human operator. Continuous pantograph monitoring is nearly impossible using human operators and automatic monitoring and alarms help further-reduce maintenance costs and response times.

Computing at the Edge

The app operates at the edge, meaning the algorithm runs entirely on the camera. No additional hardware or network connectivity required.

Remote Installation & Configuration

Noema’s computer vision applications are easy to install. Mount a new camera or equip an existing one and configure the application remotely. No additional on-site hardware or measurements are needed.

Data and Integrations

Noema’s Pantograph Monitoring application generates easily-digestible metadata that can be integrated into any backend or VMS.

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