



Case Study

Flexco Keeps Mining Conveyer Belts Moving Smoothly with **Real-Time Data**





**Unplanned
downtime
can cost up
to \$300,000
per hour.**



Their Challenge

- + Raw materials are harsh on conveyor belts requiring frequent replacements
- + Resulting in expensive and inefficient unplanned down-time
- + Flexco is a mechanical product company experienced in conveyor belt products, not electrical engineering and IoT

Goal: Proactively identify conveyor belt issues before they occur.



Developing Elevate™

A human-centered approach to product development.



Research + Discovery:

Since the exact solution was unclear, we started by interviewing 50+ stakeholders to uncover key needs.



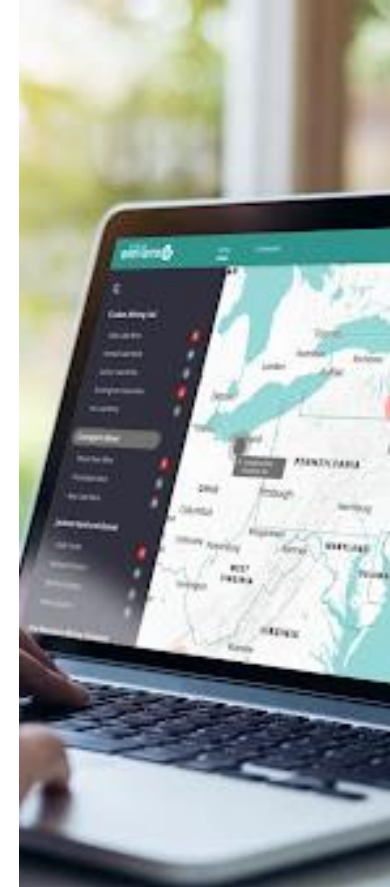
Solution Design:

User research drove product needs (i.e. remote connectivity, battery power) shaping the IoT solution's technical specs and architecture.



Prototype + Testing:

We developed an initial prototype encompassing the physical design, hardware, firmware, and cloud connectivity. This prototype was then tested in real-world conditions.



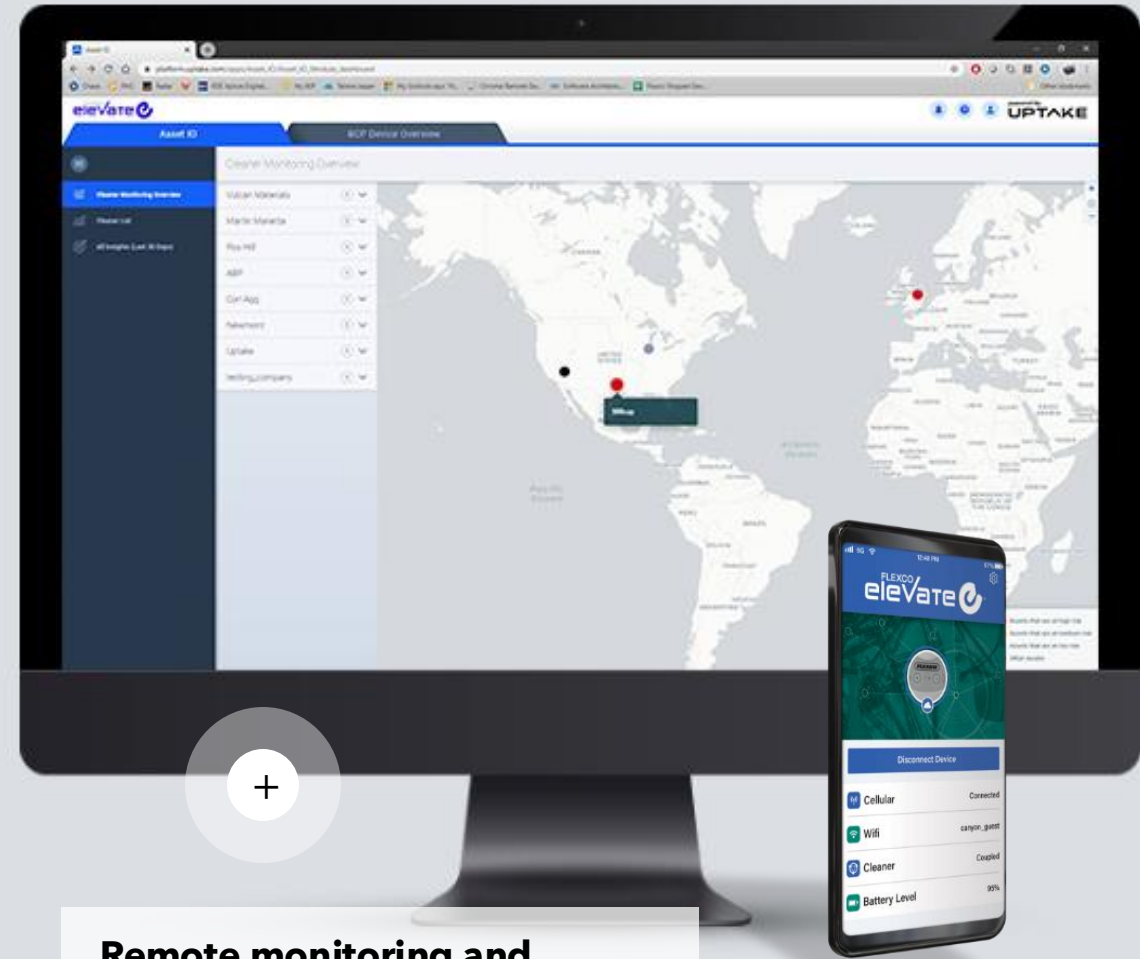
Production + Launch:

We optimized the device (hardware, firmware) based on field trials and helped Flexco navigate certification for global launch.



Edge Intelligence

The Elevate™ system uses a custom edge device to process data locally before sending it to the cloud. This not only preserves battery life but also enables real-time insights and faster response times, even in remote locations.



Remote monitoring and proactive maintenance:

The Elevate™ system empowers remote monitoring of conveyor health. This enables proactive maintenance scheduling, optimizing production uptime and preventing costly surprise breakdowns.



The Impact

+ Operational Improvements

- + Reduced downtime
- + Enhanced productivity
- + Cost savings

+ Building The Right Thing

*"Twistthink's human-centered design approach built a data collection device **based on real customer pain points and needs.**"*

-Chip Winiarski, CMO, Flexco

