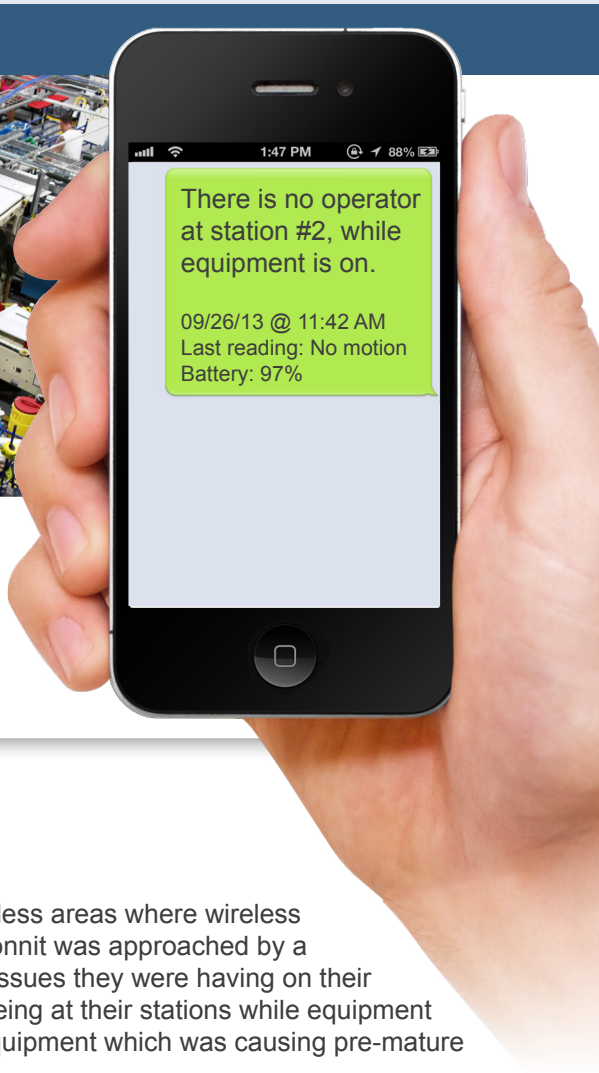
MONNIT™

The Leader in Low Cost Monitoring Solutions



Wireless Sensors Use Case:
Manufacturing

The Problem:

When you are a large manufacturing company, there are countless areas where wireless sensing solutions can increase efficiencies and productivity. Monnit was approached by a reputable product manufacturer looking for a solution to some issues they were having on their production floor. They were having issues with personnel not being at their stations while equipment was running. This issue was leading to prolonged running of equipment which was causing pre-mature failing of the electrical motors due to overheating.

The company wanted to implement a reliable, low-cost system that would track how long equipment is being run, as well as know if the user leaves the work area while the equipment is running.

The Solution:

Monnit recommended the use of wireless voltage detection sensors, temperature sensors with probes, infrared motion sensors and a MonnitLink™ gateway.

The voltage detection sensors were integrated to the electric motors, allowing the system to detect when a motor starts and stops running, as well as how long it ran. Temperature sensors were attached to the motor enclosure, with probes attached to the motor casings so they could monitor motor temperatures. Infrared motion sensors were placed above the area to detect when a user is in the control area.

The sensor data is sent wirelessly to the MonnitLink™ gateway, which sends the information to the iMonnit™ online sensor monitoring system. The sensors were set to detect and track motor run times, check motor temperatures every 10 minutes and notify a manager if a machine is running while there is no operator in the control area.

Wireless Sensors Used

Wireless sensor used:	How it was used:
Voltage detection sensor	To monitor production equipment motors to tell if they are running or not, and track operating time.
Temperature sensor with probe	To monitor and track temperatures of production equipment motors.
Infrared motion sensor	To tell if operators are in control area while machinery is running.

The Result (Cost Savings)

Monnit makes it easy to realize the immediate return on investment. For an investment of ~$1,400, the customer was able to deploy a comprehensive solution addressing all of their needs for 5 work stations. Within the first month alone the system alerted their staff of several incidents where equipment was left running unattended, allowing them to implement new procedures. Being able to track motor temperatures, in conjunction with how long the motor was running, allowed their maintenance staff to understand when a motor's bearings were faulty and the motor was nearing failure. This information allowed the company to realize savings in decreased equipment repairs and downtime, as well as realize savings by tracking and optimizing how long equipment was running to complete tasks, saving on electricity costs.

Using Monnit's comprehensive monitoring solution, this customer is now able to:

- Ensure that production work stations are being run properly.
- Maintain their production equipment more efficiently, reducing repair costs and downtime.
- Optimize machine run times saving time and electricity.

"The Monnit wireless sensors paid for themselves in the first month of use. We are able to track our production machines and optimize processes, saving us time and money! What a great investment!"

It doesn't matter where in the world you are or what time it might be, deploying a Monnit wireless sensor and monitoring solution connects you from anywhere, 24/7 so you'll know immediately when a problem starts.

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