

Autonomous Robot Dog

Interface Mini™

Industry: Industrial Automation

Summary

Customer Challenge

Autonomous robot dogs are being used more and more for inspections in different industries such as oil and gas, manufacturing, construction, and even military applications. Force sensors play a crucial role in the stability, balance, and functionality for these autonomous robotic dogs.

Interface Solution

When it comes to sensing ground contact forces, force sensors are needed in the legs of these robot dogs to continuously measure how much force each foot is applying to the ground in order to stay balanced. Interface's LBM Compression Load Button Load Cell can be installed in the foot of the robot dog. When connected to a WTS-AM-1E Wireless Strain Bridge Transmitter Module, the movement data is wirelessly transmitted to the customer's PC through the WTS-BS-6 Wireless Telemetry Dongle Base Station.

Results

During the autonomous robot dog's inspections, Interface's LBM Compression Load Button Load Cells successfully measured the robot dogs movements such as balance, foot pressure, and posture.

Materials

- LBM Compression Load Button Load Cell
- WTS-AM-1E Wireless Strain Bridge Transmitter Module
- WTS-BS-6 Wireless Telemetry Dongle Base Station with supplied Log100 software
- Customer PC or Laptop

How It Works

1. The LBM Compression Load Button Load Cell can be installed in the legs of the robot dog. The LBM's are connected to a WTS-AM-1E Wireless Strain Bridge Transmitter Module.
2. As the robot dog autonomously does its inspections and gathering data, the LBM simultaneously records data on its balance, stride, strength, foot pressure, and posture.
3. Data results are sent wirelessly to the customer's PC through the WTS-BS-6 Wireless Telemetry Dongle Base Station with supplied Log100 software.

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