

E-Bike Torque Measurement

Torque Transducer

Industry: Test and Measurement

Summary

Customer Challenge

An E-Bike manufacturer needs to test the torque on their electronic bicycles. They need a torque sensing system that measures how much force the bike rider is pedaling onto the pedals, because this determines how much electric power the bike's motor generates.

Interface Solution

Interface suggests installing the Model T12 Square Drive Torque Transducer where the pedal assist sensor would normally be. The T12 Square Drive Torque Transducer's results can be recorded, graphed, and logged using the SI-USB4 4 Channel USB Interface Module when connected to the customer's PC.

Results

The E-Bike manufacturing company successfully tested the torque on their electronic bicycles with Interface's products and instrumentation.

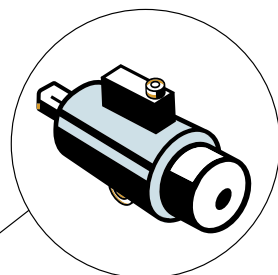
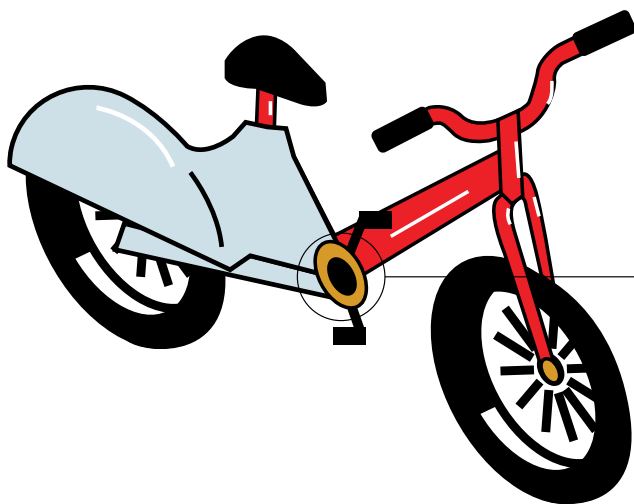
Materials

- T12 Square Drive Torque Transducer
- SI-USB4 4 Channel USB Interface Module
- Customer PC or Laptop

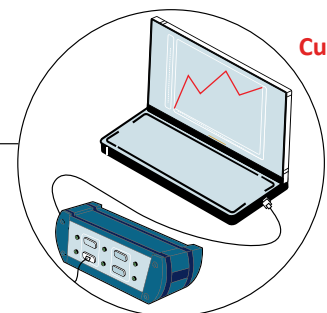
How It Works

1. The T12 Square Drive Torque Transducer is installed and replaces where the outdated pedal sensor is normally located. The T12 is attached to the SI-USB4 4 Channel USB Interface Module.
2. In a controlled environment, a cyclist pedals on the E-Bike and the T12 Square Drive Torque Transducer collects the measurements.
3. The data is sent to the SI-USB4 4 Channel USB Interface Module where the torque measurements are recorded, graphed, and logged when connected to the customer's PC or laptop.

Electric Bicycle



T12 Square Drive Torque Transducer



SI-USB4 4 Channel USB Interface Module

Customer PC