

# Bike Handlebar Fatigue Testing

## S-Type

### Industry: Test and Measurement

#### Summary

##### Customer Challenge

A bike manufacturing company wants to test the handlebars for their bikes. They need to conduct fatigue tests on their handlebars to observe its structure and performance durability.

##### Interface Solution

Interface suggests using their Interface Mini™ products such as the SSMF Fatigue Rated S-Type Load Cells. Two of these S-type load cells can be attached on either end of the bike's handlebar stem, where it will measure the forces applied as the handlebar undergoes its fatigue test. Results can be measured, logged, and graphed with the SSI-USB4 4-Channel USB Interface Module.

##### Results

Interface's products were used during the handlebar fatigue test to successfully test the bike handlebar's durability and overall structural quality.

#### Materials

- Two SSMF Fatigue Rated S-Type Load Cells
- SI-USB4 4-Channel USB Interface Module with supplied graphing software and analog output
- Customer PC or Laptop

#### How It Works

1. Two SSMF Fatigue Rated S Type Load Cells are installed to the actuators of the fatigue test machine, and the ends of the handle bars.
2. Forces are applied, and the two SSMF Fatigue Rated S Type Load Cells record and collect the data during the fatigue cycles.
3. Results are sent to the SI-USB4 4-Channel USB Interface Module where the results can be logged and graphed onto the customer's PC or laptop.

#### Handlebar Fatigue Tester

