

Bike Helmet Impact Test Load Cells

Industry: CDG

Summary

Customer Challenge

A bike manufacturing company wants to test the impact of a bike helmet when dropped from different heights, onto a flat surface such as an anvil. This test is necessary to ensure consumer safety, and that their products are made of the highest quality until sold to the public.

Interface Solution

Interface suggests installing one of their 1101 Compression-Only Ultra Precision LowProfile™ Load Cell at the bottom of an anvil. The bike helmet is then dropped from multiple heights, at multiple angles, onto the anvil. The measurements from impact are then recorded and logged when attached to the customer's PC laptop or computer.

Results

Interface's 1101 Compression-Only Ultra Precision LowProfile™ Load Cell measured accurate force results of the bike helmet impacts at different height levels.

Materials

- 1101 Compression-Only Ultra Precision LowProfile™ Load Cell
- INF-USB3 Universal Serial Bus Single Channel PC Interface Module with supplied software
- Customer PC or Laptop

How It Works

1. The 1101 Compression-Only Ultra Precision LowProfile™ Load Cell is attached at the bottom of the anvil.
2. The bike helmet is attached and dropped at different heights onto the anvil. The 1101 Compression-Only Ultra Precision LowProfile™ Load Cell measures the force impact of the bike helmet as it continuous to undergo drops at different heights and angles.
3. These force impact measurements are recorded using the INF-USB3 Universal Serial Bus Single Channel PC Interface Module, which can be viewed and logged when attached to the customer's PC laptop or computer.

