



**Company: BWI Group**

**Project Title: Brake Pedal Travel Simulator**

**Project Date: Spring 2019 - Fall 2019**

**Problem:** With mechanical hydraulic braking systems becoming outdated due to their reliance on the vacuum created by combustion engines, manufacturers are beginning to utilize electronic “brake-by-wire” systems. As a result, manufacturers must ensure that the proper feedback, or “feel,” of the braking systems align with the expectations of the consumers who have grown accustomed to the decades-old mechanically actuated hydraulic systems.

**Solution:** To gather the appropriate data for the calibration of brake-by-wire braking systems, the team has designed a testing apparatus consisting of an actual 2018 Honda CR-V cabin, a custom mechanical pedal feel emulator, various sensors, and a projector and screen to simulate the driving experience and inputs of the user.

