Team Southco: Friction Testing System
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Sponsor: Southco
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Southco is a leading producer of hinges, latches, fasteners, and other access hardware. One key product is the friction hinge used in laptops, DVD players, cell phones, etc. Team Southco designed and manufactured a tester to measure the coefficient of friction (COF) between the shaft and friction element of two models of Southco’s friction hinges. The mechanical operation, design, and measurement and control were finished, and preliminary testing yielded a COF of 0.17 which is within the desired range of 0.1-0.4 for a friction hinge with boundary lubrication.