This lab will focus on torque and how it applies to a meter stick. We will be placing the meter stick on a pivot point and adding different weights and on the meter stick and pulley attached to the end. The masses in different areas will demonstrate different torques being applied to one place and canceling out to create the equilibrium on the meter stick. Torque is the amount of force applied to an object rotating around a point. Equilibrium is the cancelation of all the torque forces being applied. The equation for equilibrium is where T1 and T2 are the torque applied from the two masses, Tcg is the torque applied at the center of gravity, and Tf is the force applied at the end of the stick as a counter weight. The pin will be placed in the middle of the meter stick, because the meter stick is uniform in length and mass, we can determine that the pin placed exactly in the middle will be the center of gravity. As we move the pin to different points of the meter stick, we can change the center of gravity and offset it with different masses and forces applied. We will be using the masses and string to find the different equilibrium points with different masses in different places.