

Determine the motor torque constant by attaching weights to the perimeter of the sector pulley, then plotting command voltage versus weight.

1. Obtain a set of weights.
2. Devise a string system on the sector pulley to support the weights.
3. Orient the sector pulley/base so that gravity acts at right angles.
4. Adjust your computer output to the motor so that a particular weight is held.
5. Vary the weights and record the hold output.
6. From the slope, determine the motor constant.
7. Compare the experimental constant from that inferred from the technical data.