## Max Stronge (30064749)

1.1: We will record 10 oscillations of a pendulum for a range of several starting angles  $\theta$  using a high-frame-rate cellphone camera to determine how the period of a simple pendulum depends on the starting angle.

Uncertainty in length will be determined in the same way as the previous lab (half the smallest increment on the metrestick)

Uncertainty in time is determined by the framerate of the camera i.e. at 24fps we will have an uncertainty of 0.5 frames = 1/48 seconds = 0.0208 (better than the human reaction time uncertainty!)

There will also be an uncertainty in our measurements of the angle  $\theta$ , which will be again half the smallest increment = 0.5 degrees.