Random  time, angle
    any data that could be a bit to big or too small depending on how you read it that time.

Systematic
    Affects all data the same way - not in the error bars
    length of string (L), width of dowel, mass of bob
\[ V = \frac{d}{t} \text{ systematic} \]

\[ u_k = k \left( \frac{u_\theta}{\Theta} \right) \]

\[ \% U_t = \frac{U_t}{t} \]

\[ U_V = V(\% U_t) \]

\[ U_V = V \left( \frac{\text{Range}}{2} \right) \]

\[ U_V = V \left( \frac{\text{Range}}{2} \frac{\text{Arc Time}}{\text{Arc Time}} \right) \]
\[ k = \frac{1}{2} m v^2 \]

0.02, 0.016, 0.0066
6.02, 0.03097

Plug in to Lagrangian