

Between-Labs Assignment **(due by Wed/Thu Lab)**

Submit answers to Slide 29, 30 Gradescope before Wed/Thu lab.

Values from projectile provided to you

- Provide the value of g along with error for the ball drop video. $g = 8.97 \text{ m/s}^2$, Error = 0.14
- Provide the value of g along with error for the ball projectile video. $g = 6.23 \text{ m/s}^2$, Error = 0.19
- Provide the value of v along x axis with error for the ball projectile video. $v = 1.07 \text{ m/s}$, Error = 0.18

(The errors are obtained in the covariance matrix)

Why do you think the value of g you obtained is different from 9.8 m/s^2 ?

Post-lab Assignment 2C

Take a video of yourself throwing an object (in 2-D projectile motion) or rolling it and having it fall. Analyze it with Tracker. Mention what kind of object experienced the projectile motion and find the initial velocity (magnitude). Also, state the value of g .

- Dropped a stuffed animal, $v_0 = 0 \text{ m/s}$, $g = 10.07 \text{ m/s}^2$