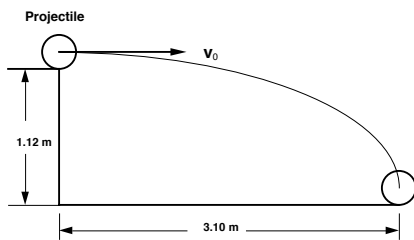


PHYS 221
Experiment 4 — Projectile motion
Prelab

1. What is the objective of this experiment? (1 pt.)

2. What is projectile motion? (1 pt.)

3. Find the **initial** velocity of the ball in the figure below. Remember that velocity is distance divided by time; See step 3 of procedure. Show all work. (3pts.).



4. For a ball shot with an initial speed of 6.0 m/s at a 30° inclination, find v_{0x} and v_{0y} . Show all work. (2 pts.)

5. Solve the following relationship for t .

$$0 = 0.847 + 5.71 \sin 13^\circ t - \frac{1}{2} (9.8)t^2; \text{ Show all work. (3 pts.)}$$