

Projectile Launch Challenge!

Directions: Each group will launch using a different pressure (80-110 bar). It is easiest to place your “catching cup” at the same height of the ball at the launch point (height of teacher’s desk + height to launch point [.146 m]) so you don’t need to account for any less or additional vertical acceleration.

Steps:

1. Set launch angle to between 45-55 degrees.
2. Place ball bearing into launcher
3. Use the dial setting on the launcher to set the maximum pressure. Pump it up.
4. With logger pro connected and running, launch the ball and catch it in the fish net.
5. Record the launch velocity and do the math to calculate the horizontal distance (range)
6. Set your “catching cup” at the right distance and test it!

Want an extra challenge?

Try it again, but this time the “catching cup” has to be on the ground so your math will have to account for the extra vertical distance.

