The Challenge

Ready, Aim, Fire!
Redesign your launcher to hit three targets – shoot for the center to win!

3, 2, 1... Launch!
1. Adjust the angle and trigger design.
2. Aim. Take three shots and try to hit Target A!
3. Record your results on an Engineering Notebook Sheet.
4. Repeat for Targets B & C.

Constraints
(rules and limits for your design)

- **Challenge Supplies:**
  Launcher (from Build Guide), protractor, bucket or target material, ruler, tape, stop-watch, ping pong balls

- **Difficulty:** Easy-Medium

- **Teacher’s Note:**
  Find more information on setting up targets and running this challenge, in the Launcher Classroom Overview.

- **Allowable Materials:**
  - TeacherGeek Components
  - Found & Recycling Bin
  - Teacher Approved
  - Non-Hazardous

- **Ground Rules:**
  - Launch from behind the starting line
  - Judges check if targets are hit successfully

- **Time Limit:**
  The time from building and re-designing your launcher to the start of the competition.

Accuracy is how close you get to the actual (true) target or goal (e.g. center of target).

Precision is how consistent (repeatable) your results are.