

# Final Project:

WORK: Force applied to a moving object (in same or opposite dir.)

POWER: How quickly work is done

ENERGY: Ability to do work

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→ Design/build

→ Programming/Arduino

## Build a Launcher:

- Size ~ around R. G. M.
- Target = 15 feet
- Locked before launch
- Reasonable complexity
  - Gears/pulleys
- Well-designed & built

## Specific Tasks:

- Hit a piezo sensor with a styrofoam ball (15 feet)
- Create a game
- Analyze work, power, and energy using your launcher
- Program Arduino with piezo sensors / LED's
- Design with SolidWorks

# INDIVIDUALLY:

either

Design launcher  
in SolidWorks

Finish

Make sketches  
on paper (high  
quality)  $\neq$   
Create one  
component in  
SolidWorks