

Name / Per:

The goal of this project is for you to make something cool that shows you really understand at least one little chunk of Physics. Also, it is fun to show off to other classes what you have learned.

Requirements:

You will work alone – sorry no groups!

You will build either an engineering project or a demo project.

You will make a poster that explains the project, all relevant Physics principles, and at least two other real-world examples of when these principles are useful.

You will present it in class and during the science fair.

You will have roughly 3 in-class days to work on it, so you'll need to spend some time outside of class. You have several weekends to work.

You will be graded on how ambitious and creative your project is, as well as the quality of your work.

You should TRY to pick a project that you can get materials to on your own. If you need help finding / purchasing anything please talk to Mr. Clark before you commit!

The Draft:

We will hold an in-class draft of project topics on May 13th. You should pick your top 4-5 ideas in case your first choices get chosen by someone else. You can come up with something original and unique if you wish. You may change your project until Friday the 17th if you come up with a better idea.

Projects and posters will be due on May 24, 28, and 29, depending on where you end up in the draft. Presentations will be May 30-31 for seniors and June 4-5 juniors

Your List in Order of Preference:

Some Project Ideas – you'll need to find directions online or make it up.

Xylophone out of 2x4 boards

Hovercraft

Solar Blimp / Balloon

Stirling Engine-powered Fan (candle as heat source)

Mini Van De Graff Generator

Small Electric Motor

Stomp Rockets

Large Wave Machine

Mini Telescope

Musical Instruments

Induction-powered Flashlight

Art through Physics

Check Make.com for lots more ideas, instructables.com

Demo Ideas

Topology (The shape of the Universe) and Oragami

Voltaic Piles – build a battery

Magnetic Field Jump Rope

Lava Lamp

Ferrofluid

Mobius Strip

Doppler Football

Vacuum Bazooka

Check out all the other Demo ideas that are printed out in the front of the class as well.