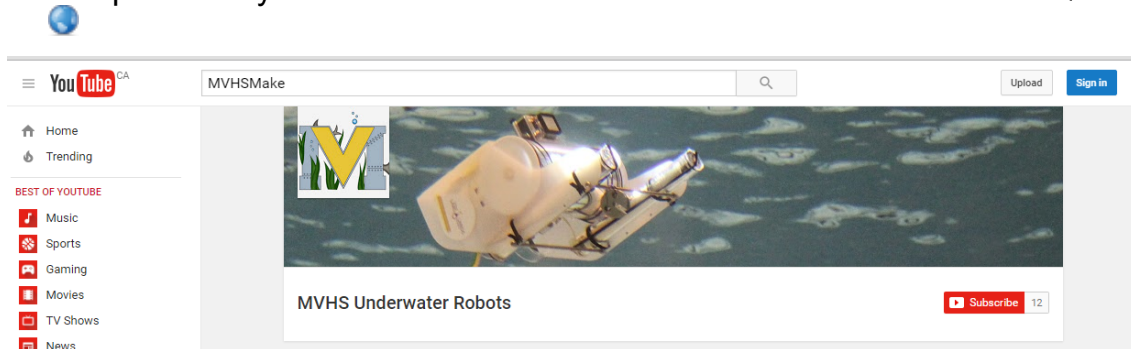
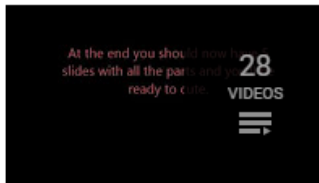


# #MVHSMake

<https://www.youtube.com/channel/UC-hZtA0UUEzndBMm1wlme4Q>



## Created playlists

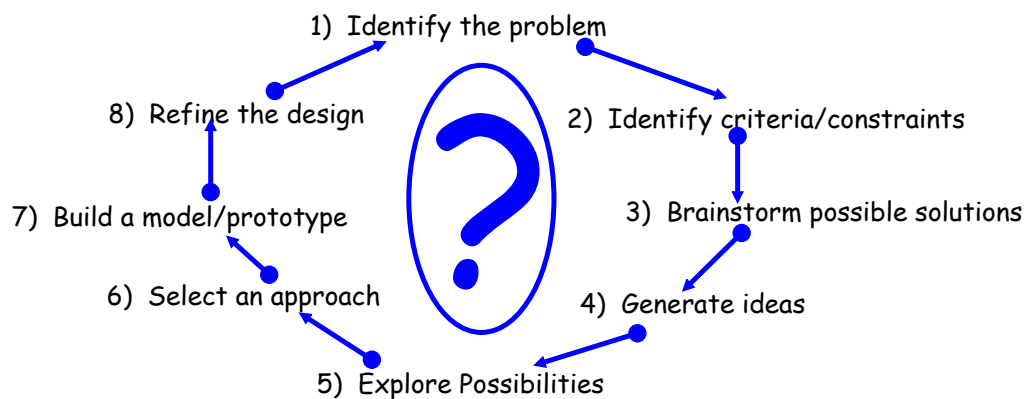


### MakerSpace Project Tutorials

|  |      |
|--|------|
| Vinyl Cutting Images                           | 6:13 |
| Beacons Next Step                              | 1:51 |
| Drone Payloads                                 | 1:24 |
| <a href="#">View full playlist (28 videos)</a> |      |

**Engineering Design Process.pdf**

# Engineering Design Process...

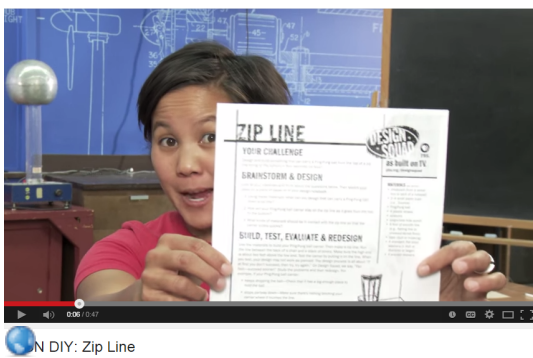


- 1) State the challenge in your own words.
- 2) Specify the design requirements.
- 3) **Sketch your ideas to solve the problem.** Labels and arrows identify parts and how they move. These drawings should be quick and brief.
- 4) Develop two or three ideas more thoroughly. Create new drawings in 3D and be neat.
- 5) Share ideas among team members...discuss pros/cons and make note on your drawings.
- 6) Identify the best design to solve the problem and write a statement to justify your choice.
- 7) Construct a full size or scale model.
- 8) Evaluate the design based on criteria/constraints. Changes may be needed and identify any problems. Propose a solution by beginning at step (1) again!

## Engineering Notebook...

- record ideas, inventions, experiments, observations and all work details.
- detailed notebooks can be used in a patent process.
- include details with dates...methods, designs, troubleshoots, observations.
- \* someone should be able to read and understand your thought process!
- sign the bottom of the page whenever you start a new page.
- only you can write in your notebook.
- do not erase errors...just draw a single line through the entry with your initials.

# Design Squad: Zipline Challenge



[Download](#)

## Instructions

**1**

**Here are some of the materials you can use**

- cardboard (from a cereal box or back of a notepad)
- paper clips
- Ping-Pong ball
- 4 plastic straws or skewers
- scissors
- single-hole punch
- 2-4 small paper cups (3-oz. [89 ml])
- smooth line (4 ft. [1.2 m]) (fishing line or unwaxed dental floss)
- tape (duct or masking)
- weights (10 pennies or 5 flat steel washers [1-in. (2.5 cm)])

\* Design Process...Journal

## **Challenge...**

Design a ping pong carrier to go on a 4 foot zipline with a 2 foot drop in exactly 4 seconds!

## Attachments

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Engineering Design Process.pdf