



Project 1 presentation



P1 Eng 1
Principles of Engineering

Define the problem.

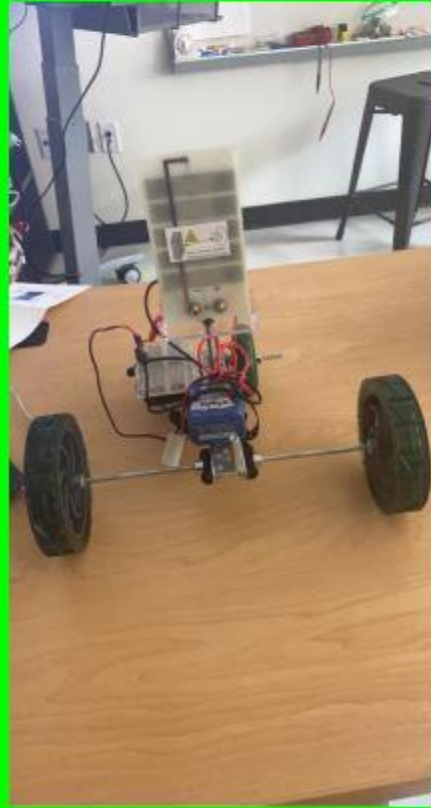
- We will build an H2 Solar(Rechargeable battery) car using the original parts and picture -
- Goal: To build the fastest car.

Before:

Left side



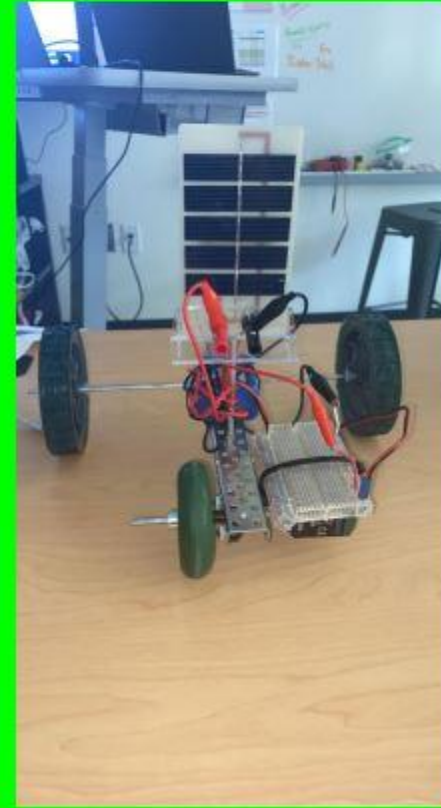
Back



Right side



Front



Generate Concepts

Skills I needed/developed to build the car:

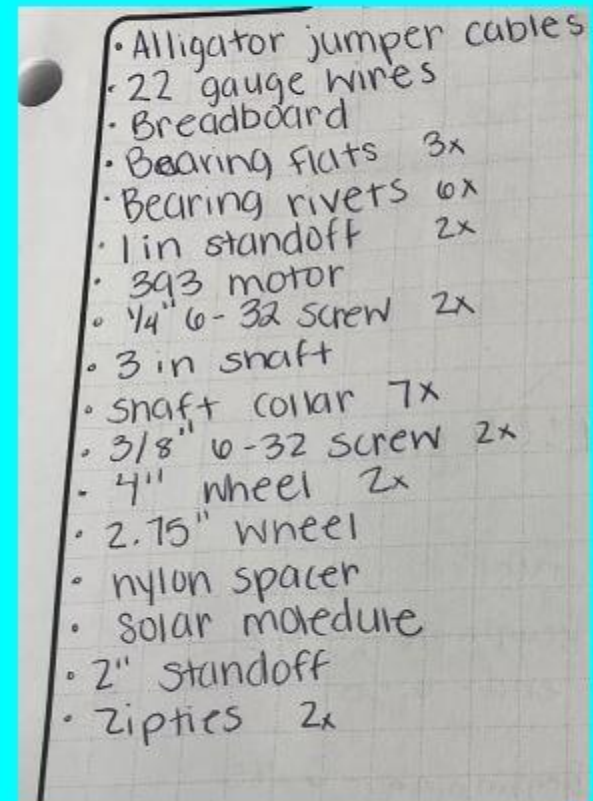
- Reading and understanding instructions well.
- Know how to Write data down and making it useful.
- How to safely use tools
- How to use a motor

Construct and Test (before)

Difficulties

- Using zip line to attach battery onto car
- Not finding each material/tools

Materials needed:



Develop Solutions

- I wanted to make an open space to place the battery in, because the battery kept falling off even when I would put it as tight as possible, and it also kept dragging.
- In order for me to figure out what would make the car faster, I had to start from scratch.
- I'm not really much of a sketcher, therefore I would write a lot of my ideas down and would take from there.

Testing data (before)

Rechargeable battery

Flat side walk:

| | Trial 1 | Trial 2 | Trial 3 |
|----------|---------|---------|---------|
| Distance | 22 ft | 22 ft | 22 ft |
| Time | 20:98 | 19:66 | 20:15 |

Testing data (before)

Rechargeable battery

Bumpy ground:

| | Trail 1 | Tial 2 | Trial 3] |
|----------|---------|--------|----------|
| Distance | 22 ft | 22 ft | 22 ft |
| Time | 20:88 | 20:49 | 19:99 |

Testing data

Solar panel:

| | Trial 1 | Trial 2 | Trial 3 |
|----------|---------|---------|---------|
| Distance | 22 ft | 22 ft | 22 ft |
| Time | 1:18 | 1:20 | 1:30 |

New materials used:



Difficulties:

- Coming up with ideas of how to change my car.
- Having to reconsider a lot of my ideas because they're not useful when it came to meeting the goal.

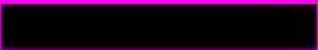
Testing data (After)

Flat side walk:

| | Trial 1 | Trial 2 | Trial 3 |
|----------|---------|---------|---------|
| Distance | 22 ft | 22 ft | 22 ft |
| Time | 17:99 | 17:96 | 18:37 |

Testing data (After)

Bumpy ground:

|  | Trial 1 | Trial 2 | Trial 3 |
|---|---------|---------|---------|
| Distance | 22 ft | 22 ft | 22 ft |
| Time | 19:06 | 18:78 | 18:87 |

Presentation solution

I changed the battery placement because the battery kept falling/hanging off and slowing down the car more. I've decided not to add the solar panel because I think it would be useless considering how slow the car is when relying on the solar panel. Based on all of the data that I have collected I did succeed on reaching my goal. My goal was to create a faster car and even though my car goes only second or so faster, it's still faster. If I had had more time I would have went back and forth changing the wheels and testing them to see which one would have possibly made the car faster.

