

Eleva-Strum Engineering Club

Into orbit

Team

Cora G.

Sam G.

Jared B.

Kahlan K.

Adviser

Tyson Rohrscheib

Cora Gehrke
President

“Early bird gets the worm, but no sleep.”



Jared Bohn
Vice President
“WD40 and Duct Tape.”





Samuel Gehrke
Builder

“Don’t give up.”

Kahlan King
Engineer

“Sometimes you just need wood glue.”



Tyson Rohrshcheib
Advisor

“If you guys take care of everything, I’ll be your advisor.”



Steps

- Push red buttons
- Motor turns on pushing on scissors
- Scissors cut string attached to weight
- Weight falls starting gear train
- Gear train starts hydraulics
- Hydraulics push marble down ramp
- Marble rolls down two ramps hitting weight
- Weight rolls down ramp hitting stomp rocket
- Stomp rocket shoots off hitting pressure plate
- Pressure plate sets off the orbiting solar system
- The vinegar then is released going through a tube
- Vinegar falls into balloon with baking soda causing the sun to explode
- The End

Progress Photos



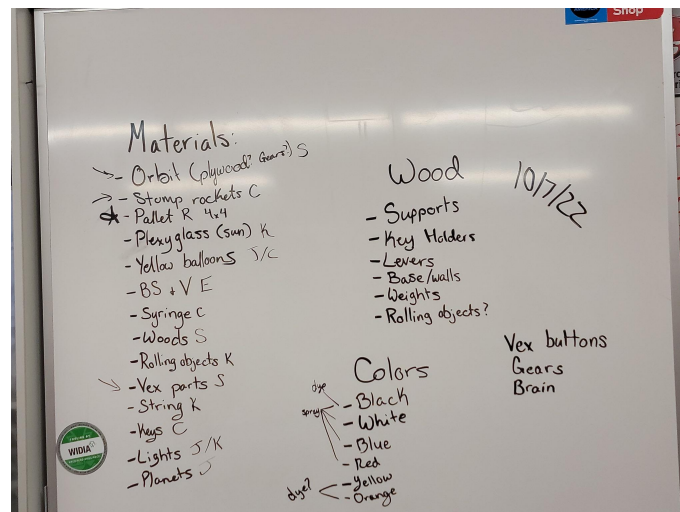
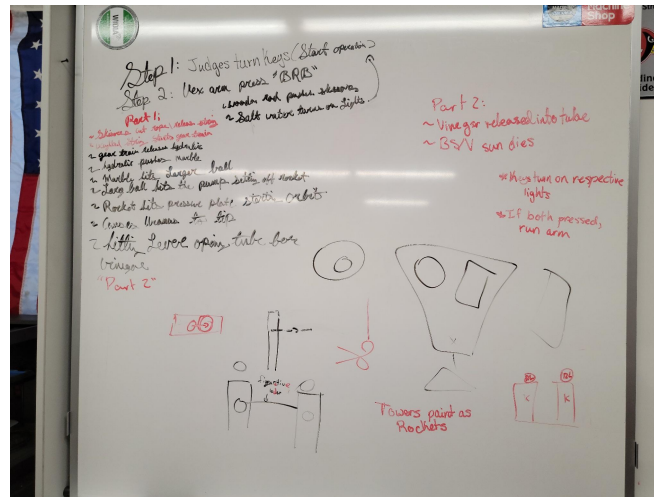
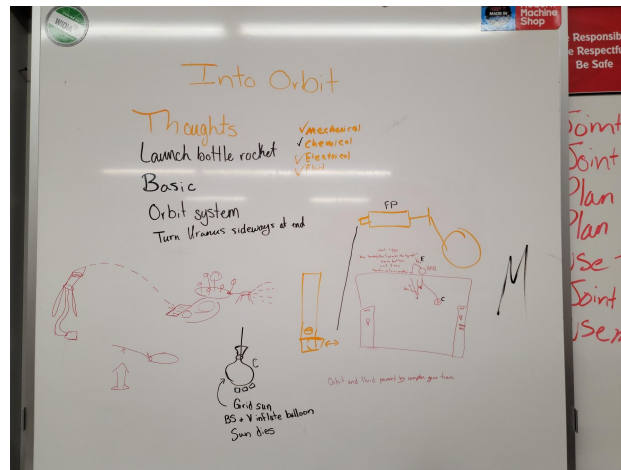








Original Plan



Adversities & Solutions

- Time Management
 - Scheduled on Wednesdays before school and Fridays before school to avoid conflicts with sports and extracurricular activities

Chemical Reaction

- Baking soda and vinegar

Fluid Component

- Syringe

Electrical Component

- Vex V5 robotics components (Brain, Motor)

Mechanical Component

- Solar system
- Stomp rocket

Team Reflection

- The overall project was a small struggle especially the building and assembly but in the end we had a product we wanted. Having people of different ages added a lot to how we thought through things, making us tweak small things on the way and that's how we ended up with our finished product. Overall we are very proud of what we got in the end and are excited to see it run.
- After going through the first competition we realized that there were more kinks in our machine. There are a few things we need to look over before we are ready to run it, because when we ran it the first time the pulley symptom was off the wheels and the second time the weight didn't want to drop. The solar system also wanted to stop because of the vex parts we used so we switched those also. Therefore we will be prepared for this next time we compete.

Materials

Recycle

90% are recycled

Bought

~None

Word Count

291 words

Special Thanks To:

- ~Cardinal Manufacturing
- ~Eleva-Strum Robotics
- ~Eleva-Strum Art Department