

Objective



Objective: To create a cool and functional Halloween animatronic

Rules & Restrictions: The animatronic had to be Halloween themed, needed to have at least one moving component, and stay within a \$20 budget

Our Device: We made Voldemort trying to kill baby Harry Potter, with him raising his wand and pointing it at the baby he holds in his other hand.





Documentation



TESTING AND ASSEMBLY

Design Process

Define Problem:

For this Harry Potter Voldemort project we wanted to incorporate most of the engineering techniques we've learned.

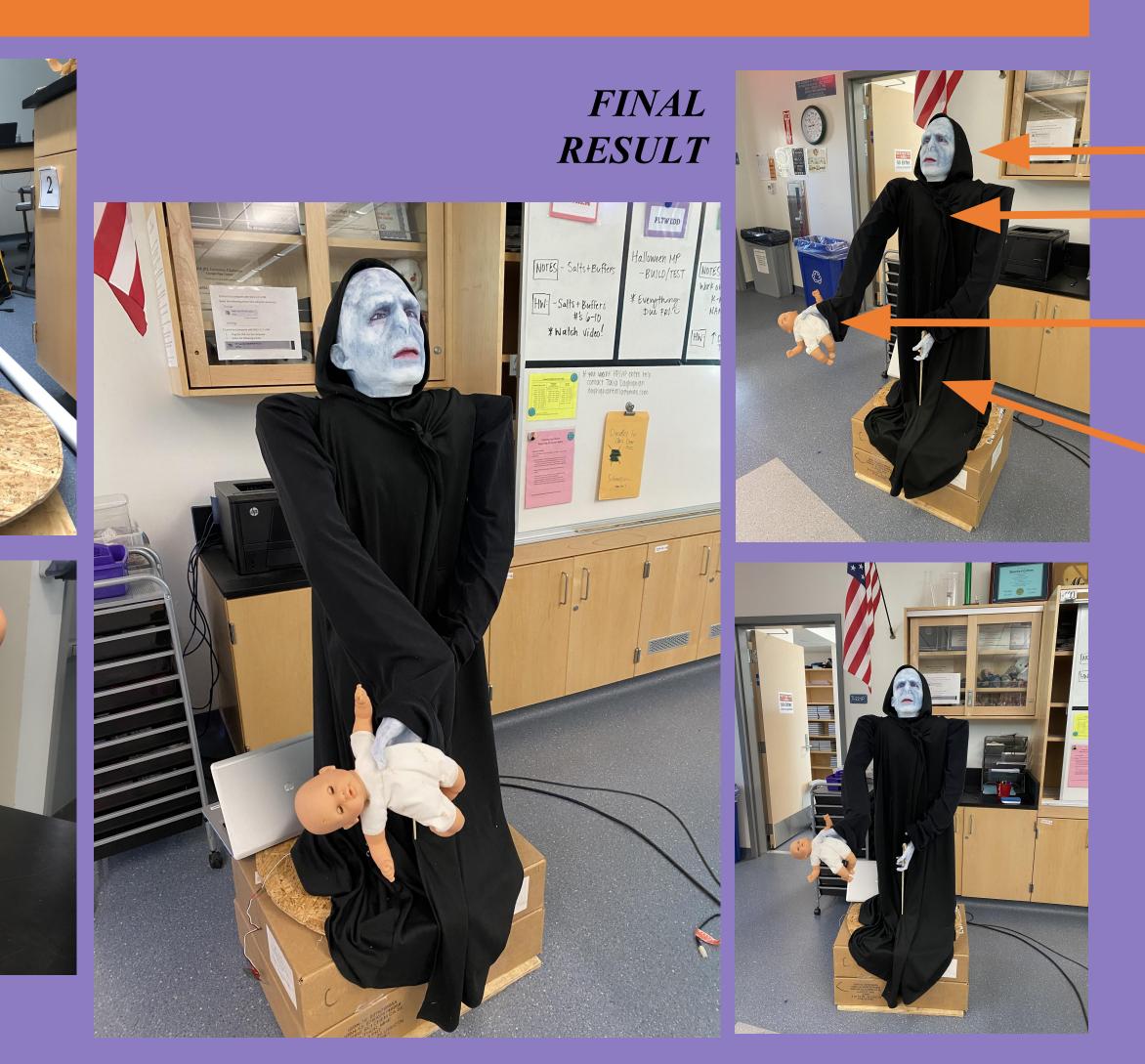
Brainstorm:

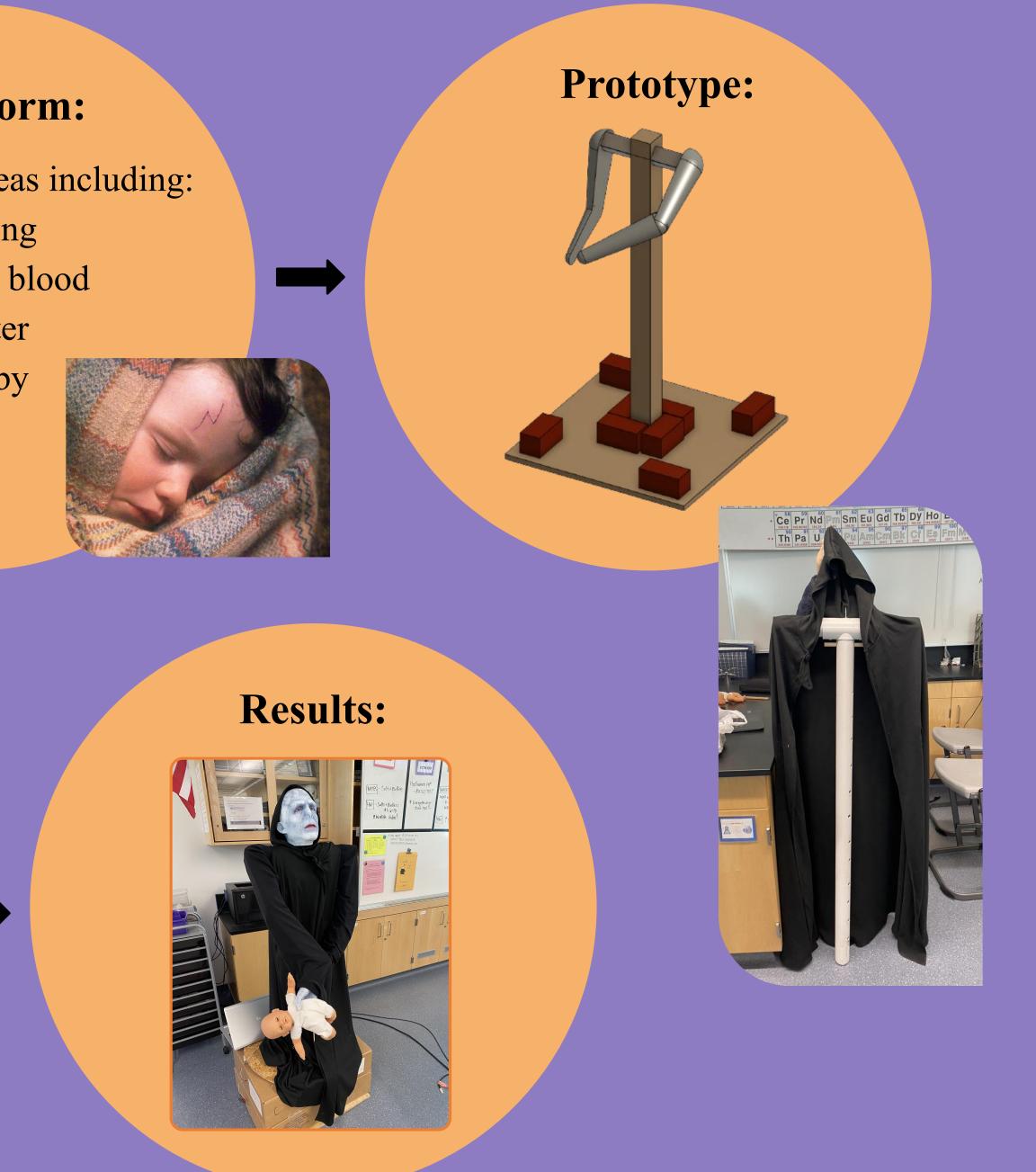
- We has many ideas including:
- \rightarrow Soul sucking
- \rightarrow Baby with blood
- → Harry Potter
- → Spider Baby



Test Solution:

- Restructured to get realistic proportions
- Trial and error to get the hand placements correct
- Reran the code many times to take into account altering arm weight





Parts and Components

3D printed Voldemort head, painted and covered with black cloak

Location of Vex Robotics "heart," where all the code is stored

Baby Harry Potter, wired with a red LED for lightning scar

3D printed hands, painted; holding wand and green laser pointer for magic effect

Issues

- Figuring out what program would work with Vex parts and getting the code to work correctly
- Gathering materials
- Lead to issues with having enough time to put all parts together
- Making realistic proportions
- Lining up the arms properly



Future Steps

Once the project is completed, we hope to disassemble Voldemort and use his parts as room decoration