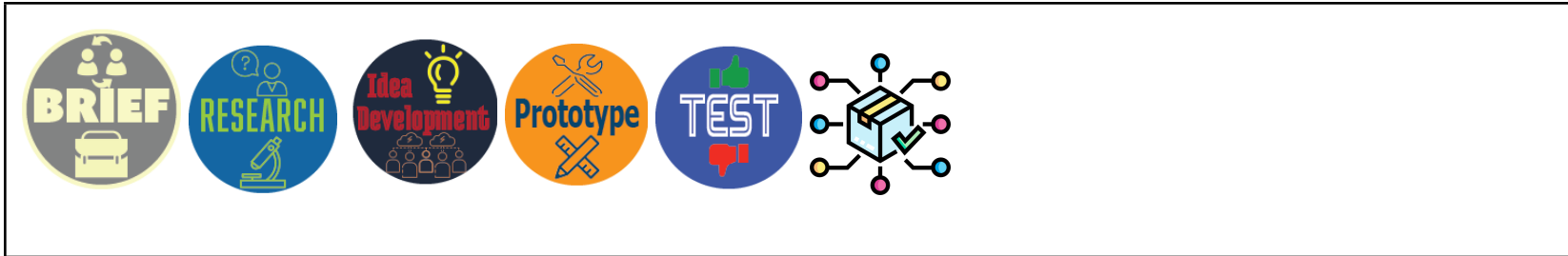


# Project:Pinball Project

Team Member Names: Alexandra Price and Rhyland ONeill

Keep these stickers at the top, but place them in your notebook denoting the start of each step. **Date each entry and make the entry on that date, no exceptions.**



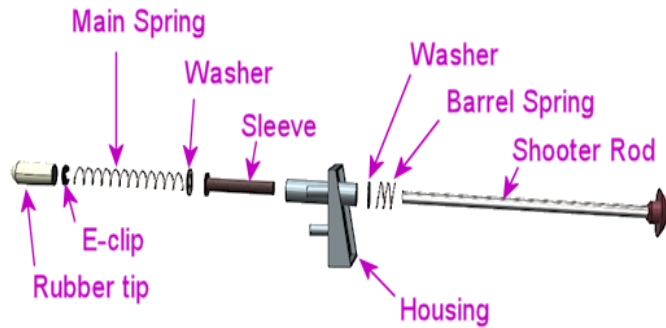
Date: 7/30/24



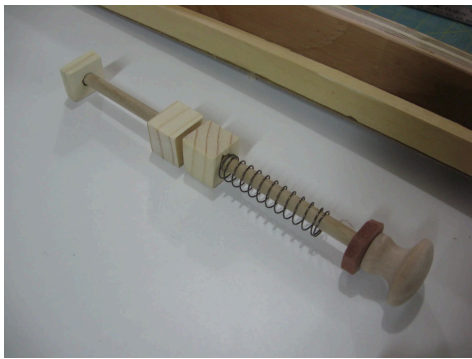
Date: 7/30/24

## Launchers (part requirements):

What it does	Launch the ball all the way to the top and beyond each time.
When it does it	When pulled back and released by player.
How it does it	The user pulls back the handle/knob and in the process the user transfers energy from their hand to the spring (potential energy). When released, the spring converts energy to kinetic transferring the energy to the ball propelling it into the game field.
Aesthetics	Knob fits the theme. Excellent craftsmanship.
Construction/durability	Assembled with wood glue or screws. No hot glue. Able to withstand thousands of uses.



Design #1 ~ This design I found online during a Step by Step youtube video. This one seems more complex and we may not have the materials here. [Link](#)



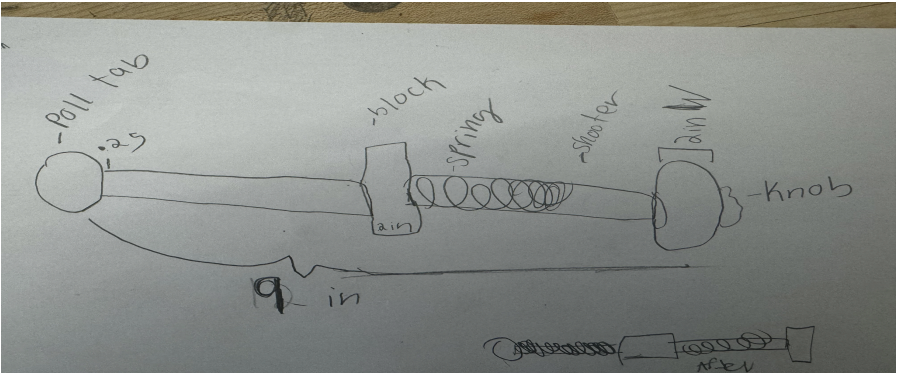
Design #2 This design requires a dowel, 2 blocks, a knob, and a square hitter. **This design is kinda what we are going for.** I like the idea of the launcher being square I just don't understand the point of 2 boxes so I would like to test that out. [Link](#)



Design #3- This design seems the most powerful due to being made out of metal. But, I would like to explore digitally fabricated instead. [Link](#)



Date: 8/1/24



Here's a rephrased version:

created a sketch of a potential design, with the different components clearly labeled. I based this sketch on option 2, as it was my preferred choice. My design will be made of wood and will feature only one spring. The knob or pull tab will have a sphere design, and all components will be secured with screws to ensure durability. The launcher will measure 9 inches in length and 2 inch in width/diameter to accommodate a ball that is  $\frac{3}{4}$  of an inch. The rod will be slightly smaller.

Decision Matrix	Option 1	Option 2	Option 3
Alignment	Has an alignment Block	Has two Alignment Blocks	Has an alignment Block
Spring	Two	One	One
Knob	It's Okay	Easiest to handle and Durable	Normal



Date: 8/2/24



We first estimated how long we would want the dowel to be and we cut it with a band saw. Next we Glued the digitally fabricated blocks together and began making the knob. Next we made the hitter then added the springs.



Date: 8/13/24



Here is our prototype launcher. Our launcher reached the ball to the back for the board when pulled. For our final Launcher we are going to make sure no glue is visible, make it much smaller, and make a design on the knob.



Date: 8/20/24 Here is our final launcher. As you can see we painted our Block to match the theme and we made the launcher about 3 inches smaller than our prototype. (Not pictured) We made our Knob the Gru Symbol from Minions!

Date: