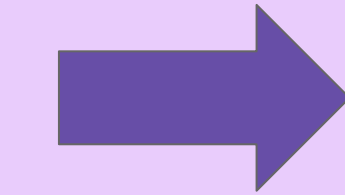
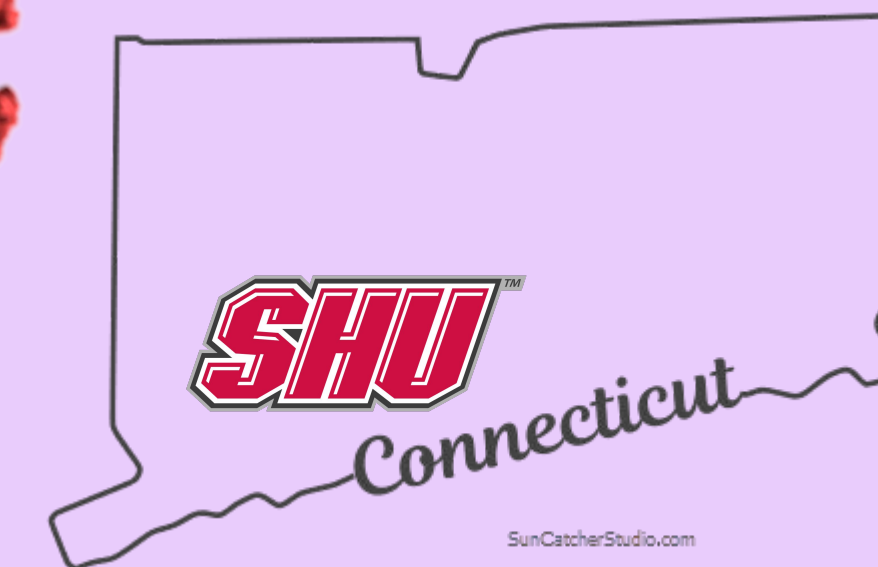
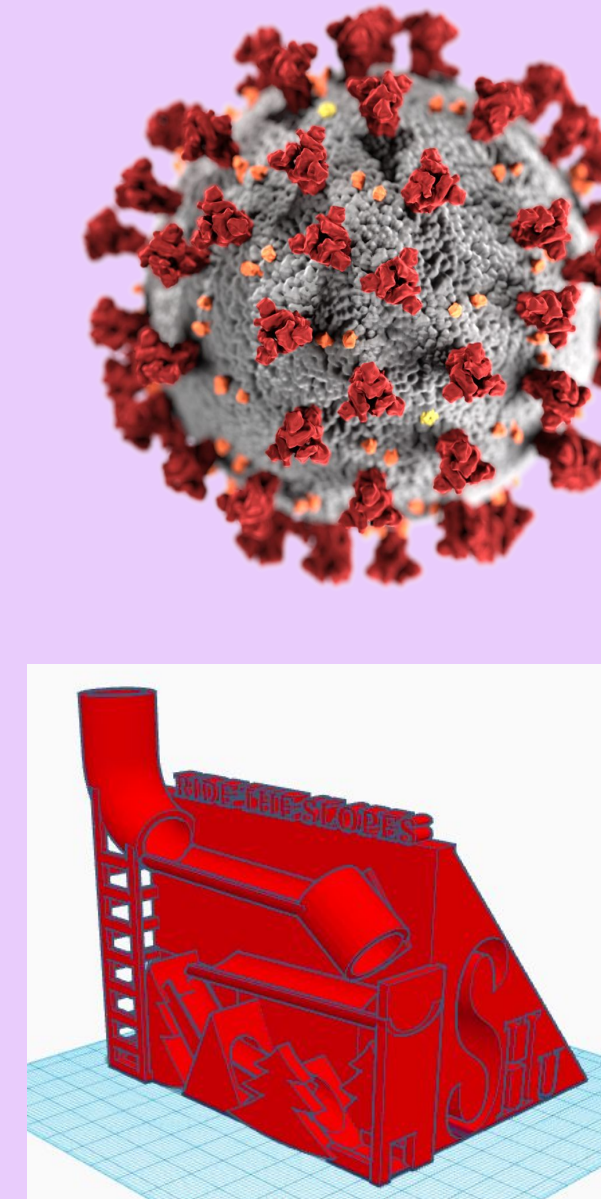
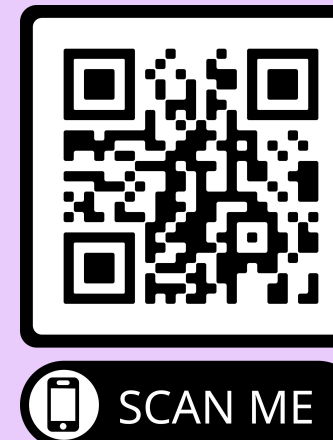
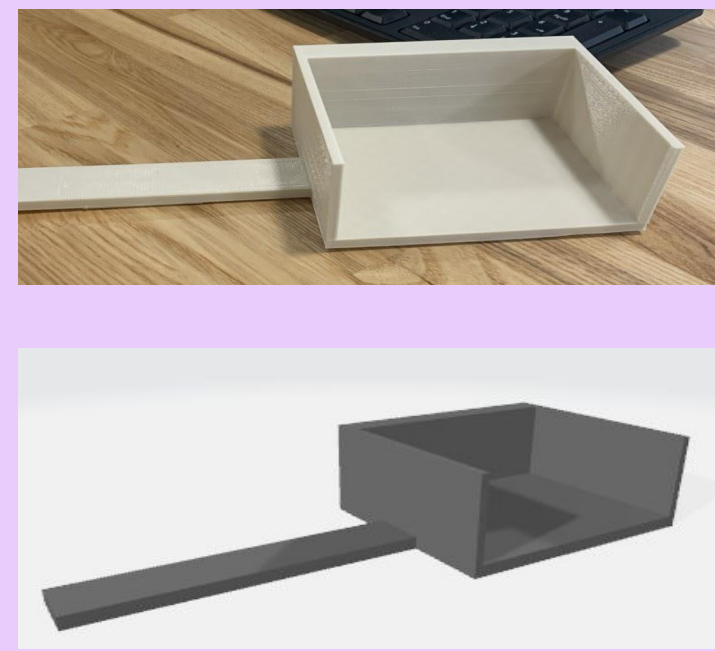
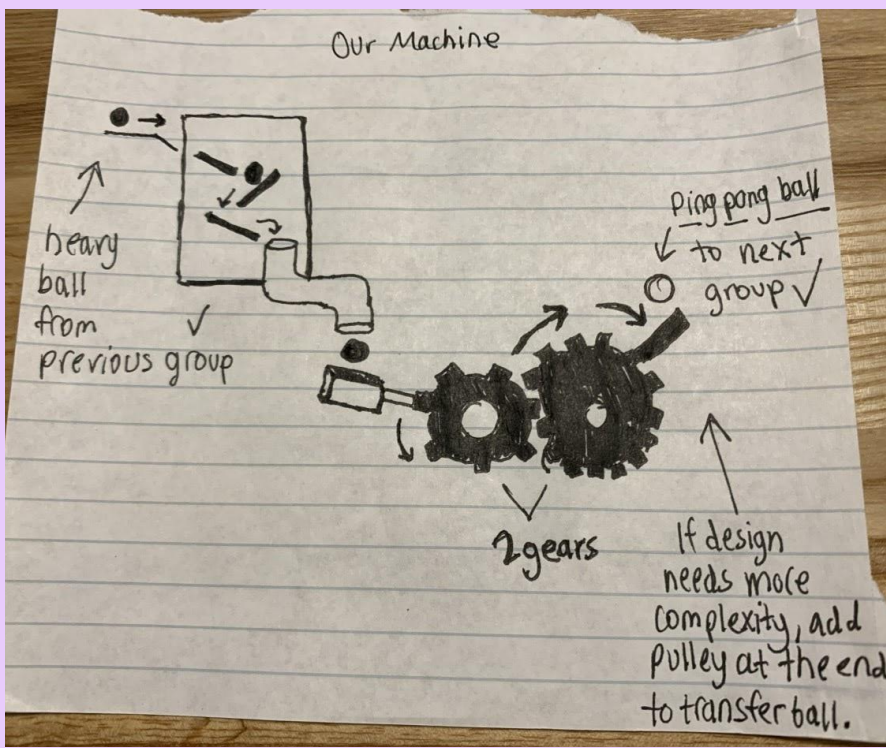


# RG VERSION 1

# COVID 19

Ocel: The Tale of a Rube Goldberg



Rube Goldberg Version One is Chapter One of this story. To begin, my partner Dylan and I wanted to create a rube goldberg with a gear system for rotational to vertical movement. In racking our brains and talking to others in the idea lab, we decided that using levers would be a more efficient way to trigger up and down motion. So, we created a lever system out of cardboard and popsicle sticks. Although this version was only about 2.5 seconds, it was a great step in the right direction. In the process of this creation, we also dabbled in CAD software and were able to design a better crafter lever box for our first lever in the Rube Goldberg.

Unfortunately, with the pandemic of COVID-19, all the plans that were made to continue the production of the Rube Goldberg were halted. The main plot twist in the story. I had created a marble run with the theme "Ride the Slopes" and never got the chance to utilize it for the next version! I was also looking forward to incorporating all of Sacred Heart's technology into my design which was unfortunate! But, with change comes opportunity, it was time to start from scratch. This time, with home materials, the class was tasked with creating an at home Rube Goldberg machine with the limited materials we had at home!

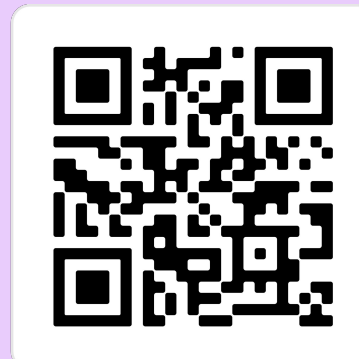
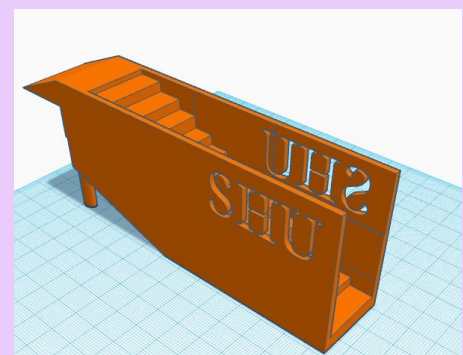
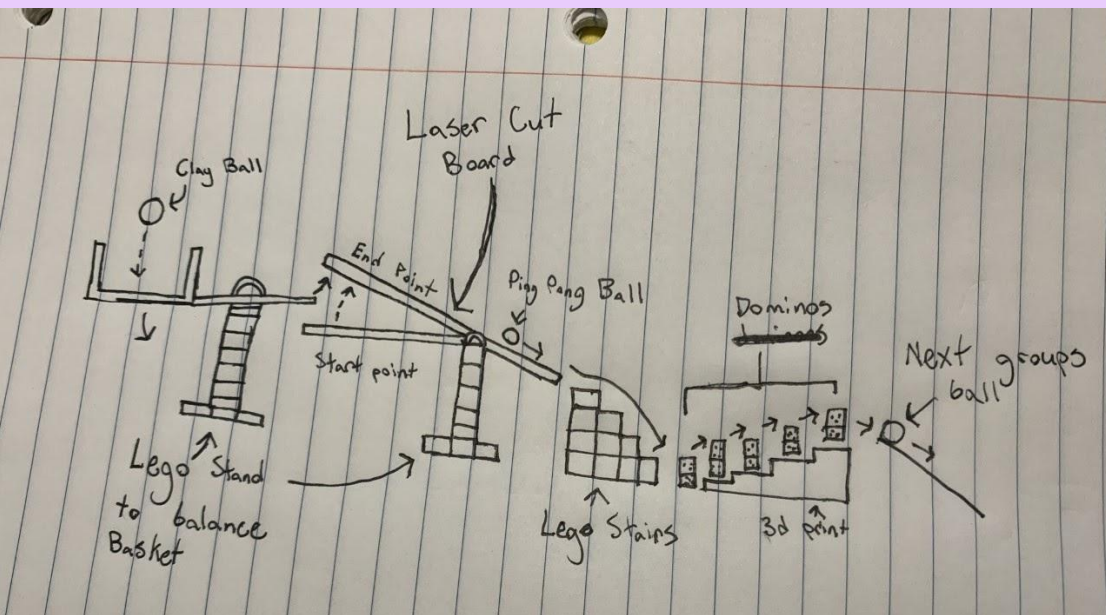
# RG VERSION 2

## THE TALE OF A RUBE GOLDBERG



MAJOR: MATHEMATICS AND MECHANICAL ENGINEERING

# RG: A NEW WORLD



Scan me

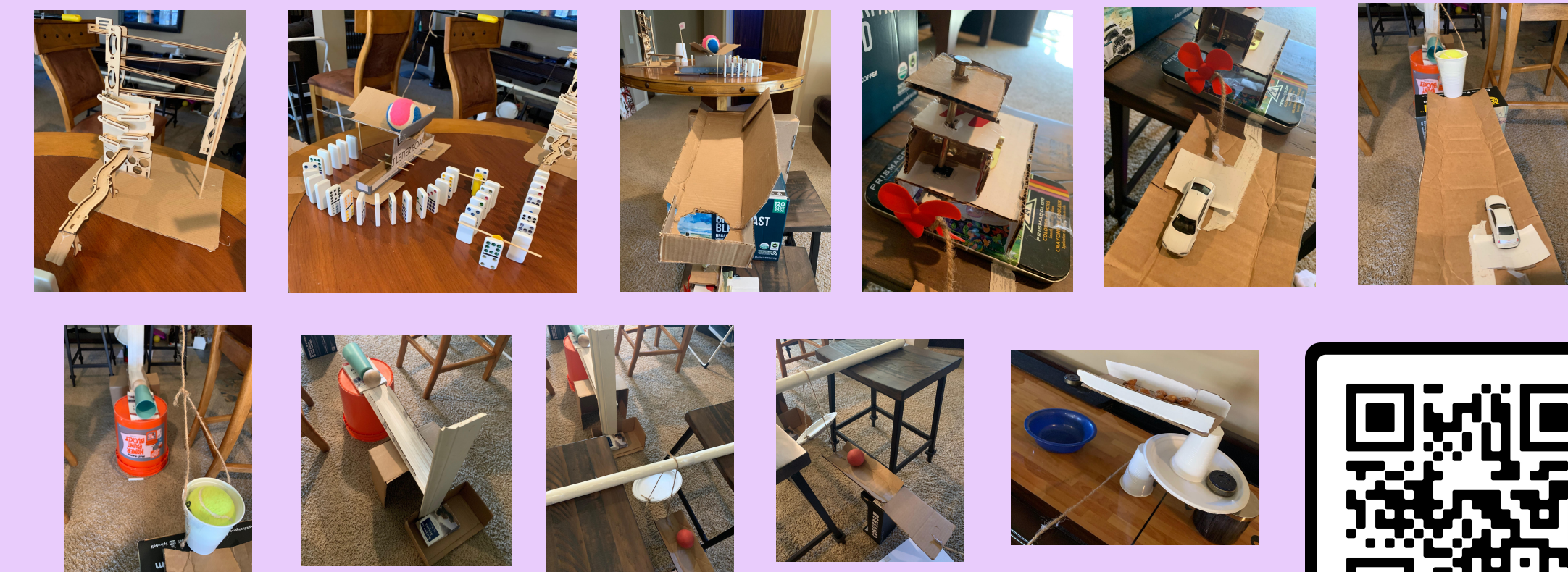
## OVERCOMING CHALLENGES

The process of creating a rube goldberg was not a walk in the park. And like every good story, there were ups and downs. COVID-19 was a large inconvenience to the creative process. But, even at home, there were many challenges in trying to use everyday household items to create a machine! Scan the QR code to see just a few of the failures that my machine went through!



"Success is walking from failure to failure with no loss of enthusiasm."  
~ Winston Churchill

## STEPS OF THE HOMEMADE RG



SCAN ME

The second chapter of this story is about innovation and improvement. In the second version of the Rube Goldberg, Dylan and I were able to explore the cool technology that SHU has to offer. Our design improvements involved creating a better lever board with the laser cutter, printing a new 3D marble track on TinkerCAD, and creating sticker designs with the Vinyl Cutter to improve the aesthetic. While we were creating those components, we also added other elements to the machine. We struggled to figure out how to make our machine longer and more advanced, so we added a little track on the lever board itself for the marble to travel down. Additionally, we added successive dominoes in order to lengthen the duration of our machine. The result of Rube Goldberg version two showed great improvements from the first version and the complexity was starting to rise greatly!! Scan QR code for the video!

Although the plans were changed quite quickly and unexpectedly, the resulting Rube Goldberg machine is something I am proud of. It lasted around 13 seconds and traveled a fair distance. The completion of the Rube Goldberg resulted in the pouring of a nice bowl of pretzels which I would say is a win for everyone! Overall, this was a great experience and I learned a lot about the Engineering process of learning from failures to find greater success! Aim high and think creatively!! And that is a happy ending to a semester long engineering story!! Scan the QR code for the final result video!

