



# Interactions of ORG 27569 at CB<sub>1</sub> Receptor

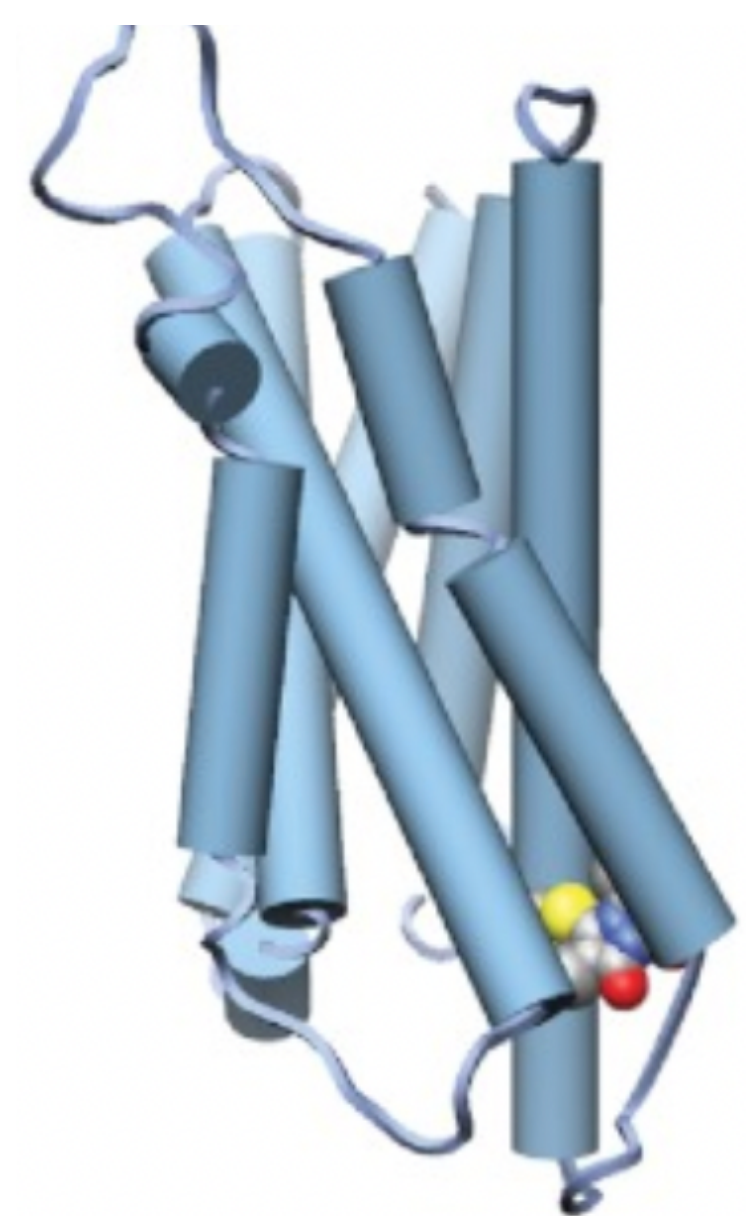
Jacob Beam, Abigail Kollu, Nadia Velez, Michael Novak, & Dr. Rachel Penton



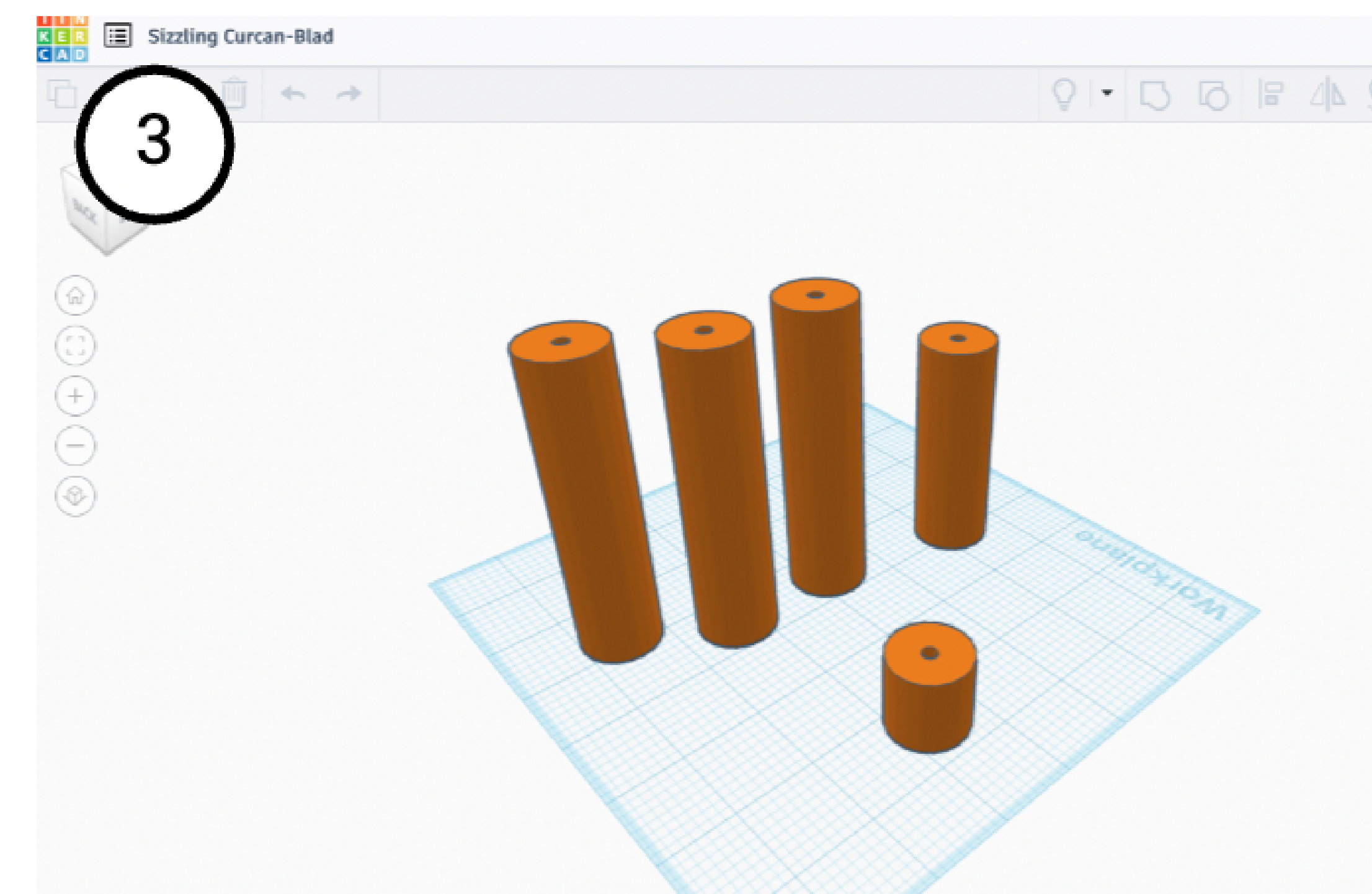
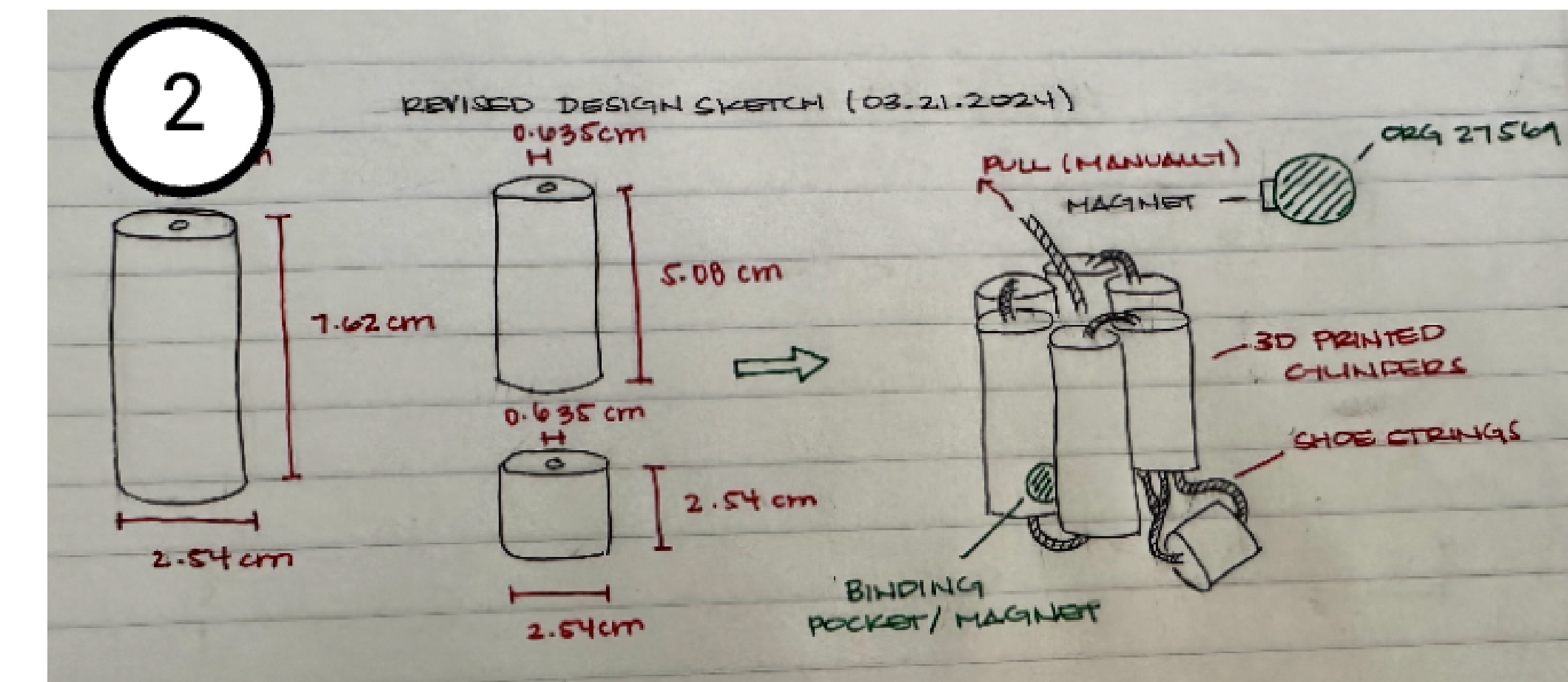
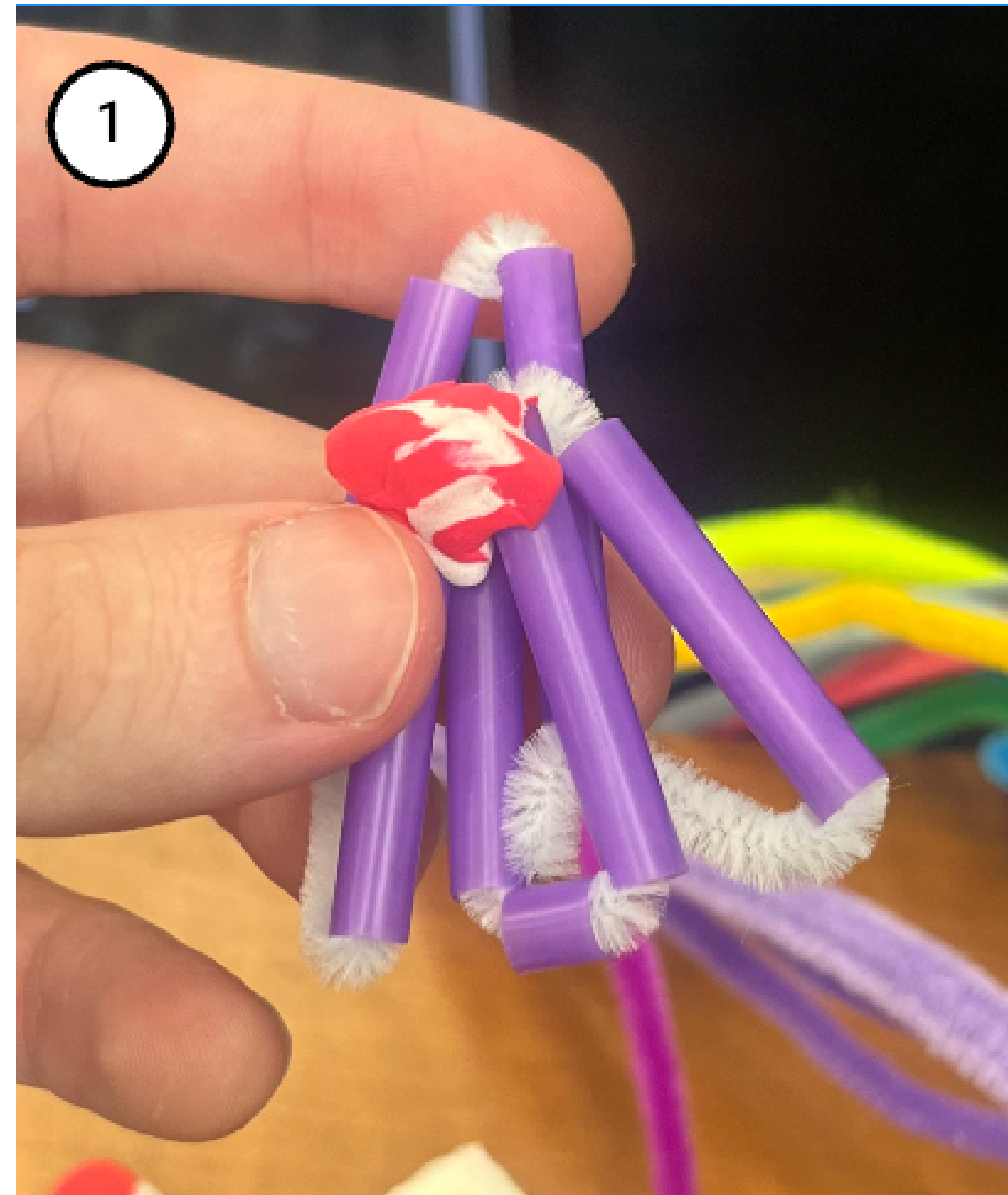
References/Contributions

## BACKGROUND

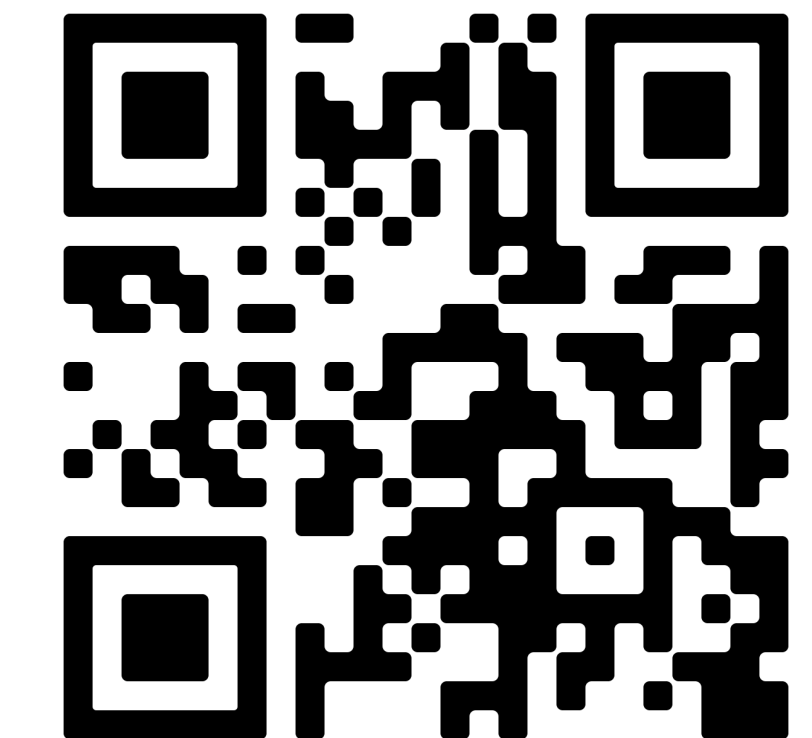
- CB1 is a GPCR described as having 7 transmembrane helices
- CB1 receptor activity is associated with psychological disorders, addiction, and motor dysfunctions
- Org 27569 acts as a NAM by blocking movement of TM6



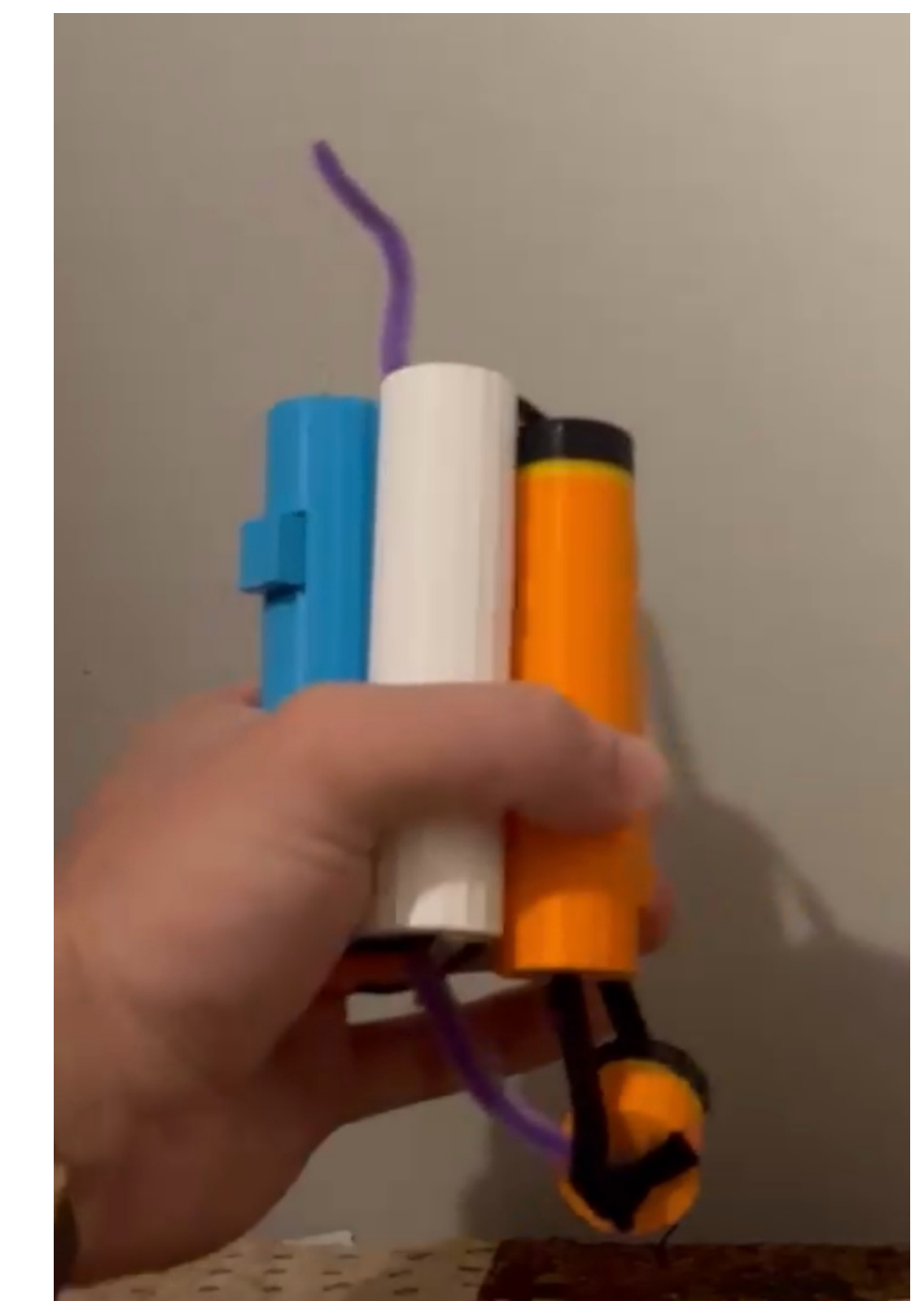
## DESIGN PROCESS



## FINAL MODEL & VIDEO



Model Video



## METHODS

### Methods:

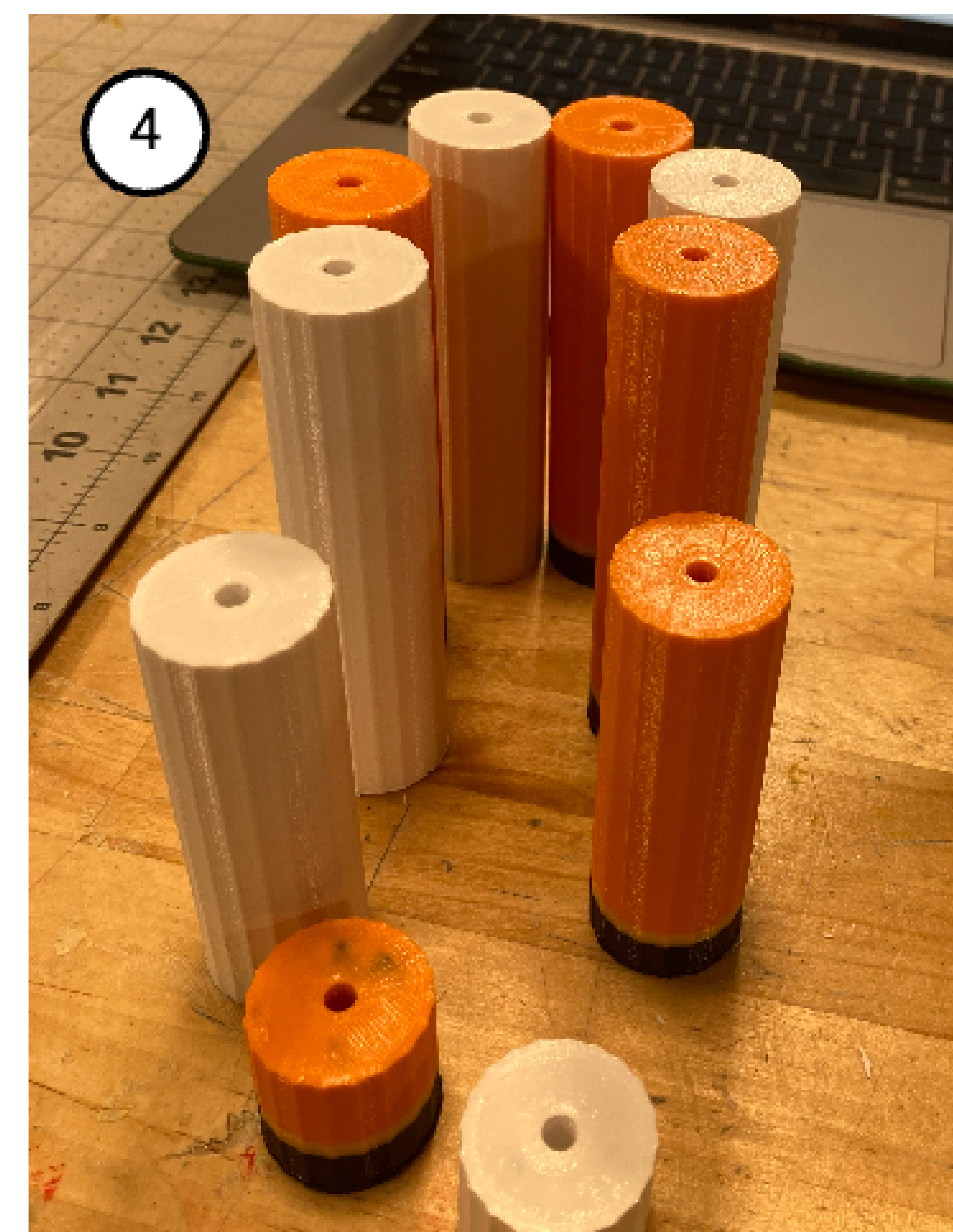
1. Research
2. Design
3. Model
4. Iteration

### Materials:

1. 3D print filament
2. Shoestring
3. Magnets

### Equipment:

1. Hot glue gun
2. 3D printer



## DISCUSSION

### Limitations:

- Model does not account for any movement by other helices
- Allosteric binding site is unknown, improvised for model

### Future Directions:

- Design of a more structurally accurate model, through advanced understanding of binding site location
- More flexible structure to account for all helices movement