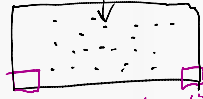


playground idea #1 - PLINKO MACHINE \$\$\$

- can be built into the wall of another object
- my assumption is it should be cheap
- I want to find an article about how kids react to "gambling" or variance
- ↑ obviously no money will be involved but I feel like there is somehow a way to improve mental health when a rare event occurs



like when the plinko ball hits the edges (rare event)

09/04/24

- After researching, I want to include the plinko machine
- ↑ This also sparked further interest in me, can I make it a theme of my playground to have probability & statistics?
 - roulette wheel mrrs go rand?? lol
 - 8 ball?

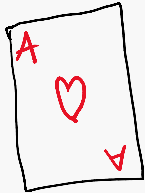
maybe just have objects for the theme?

- dice
- cards
- chips
- etc



- yk how under playground structures theres interactive wall pieces? thats where I'd put the plinko machine (idk how to draw)

red, black, & white will make a good color palette if I go w/ a casino theme



just thought of this... rock climbing wall **BAN G** (or a big structure that looks like cards & chips)

09/10/24
- survey parents to see how they feel about the "casino" theme
- just make theme based on cards
- remember to consider theft

09/12/2024

- confirmed I want a merry-go-round roulette wheel
- had a shower thought: banning ball dispenser to circumvent plinko theft



a chunk will be handicap accessible
an arrow to point at one of the numbers

09/21/2024

- still undecided on third feature
- have yet to start modeling the playground bc I'm making my own stuff in
- havent done any research on playground theft

- new stuff
- my own stuff in
- haven't done any research on playground theft
- kinda just writing stuff down lol

09/28/2024

- try to follow rube challenge
- I have two design ideas currently, both which are previously mentioned

plinko machine

merry-go-round roulette wheel

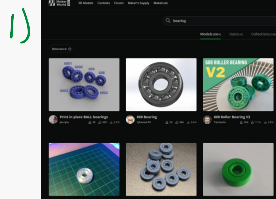
- the models will be 3D printed, as I have my own and lots of materials for it
 - 0.2mm nozzle
 - all colors necessary
 - I will use solidworks to make every thing
- probably in October is when I will mentally reserve time to start using free time to model & print
- I think more will be communicated as I start using solidworks
- main design revision in currently is to have a gum ball machine or something to prevent/minimize theft
- ↳ my next annotated bibliography will be about this

10/03/2024

<https://www.dec.state.pa.gov/documents/attachments/PlaygroundRequirementspolicybestpractice.pdf>
 Min 7ft clearance around merry go round
 No (or very little, outdated, or not from a reputable source) information on theft from playgrounds
<https://www.massellalaw.com/blog/2023/october/how-do-shoplifters-get-caught/#:~:text=According%20to%20the%20National%20Association,ever%2049%20incidents%20of%20theft,Article%20on%20shoplifting%20instead,though%20not%20sure%20if%20it%20will%20be%20used%20to%20justify%20something>

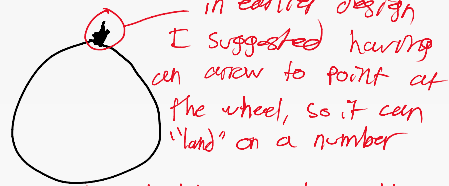
10/06/2024

- baked in both
- just realized two design considerations



- I will likely design my merry go round to just fit one of these, so the model can spin

2)



I did not think about the feet you would need to walk around this

Solution: arrow be painted on the ground

OR

the arrow is very small and would be over the numbers



this could work

↳ the green space is what I forgot to originally consider

- just wanted to quickly document this!!

SIGNED Baby

10/16/2024

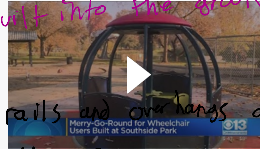
- back from break - time to lock in

[https://www.inclusiveplaygrounds.net/we-go-round.html#:~:text=Min%20Area%20Required%3A%2020%2010,\(6%2C35%20m\)%20diameter](https://www.inclusiveplaygrounds.net/we-go-round.html#:~:text=Min%20Area%20Required%3A%2020%2010,(6%2C35%20m)%20diameter)

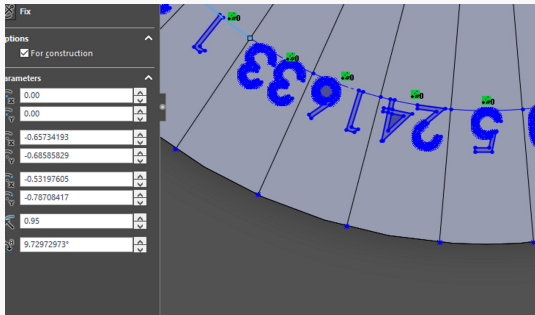
- just now seen this when researching the needed size for my merry-go-round



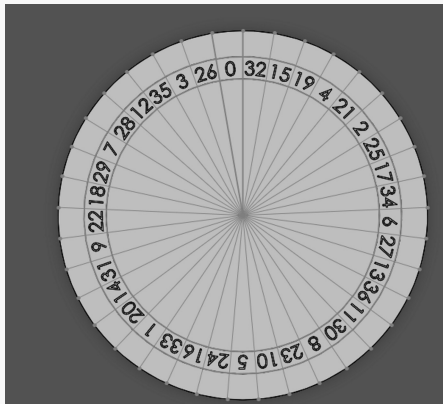
existing designs
- built into this around



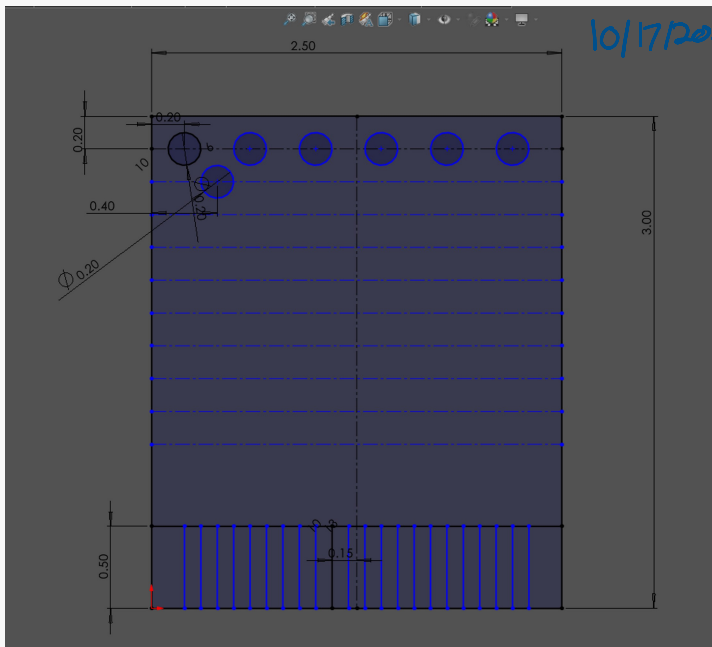
- I personally want as little rails and overhangs as possible
- going to at least design the face in



What a nightmare it is to extrude text in solidworks for whatever reason



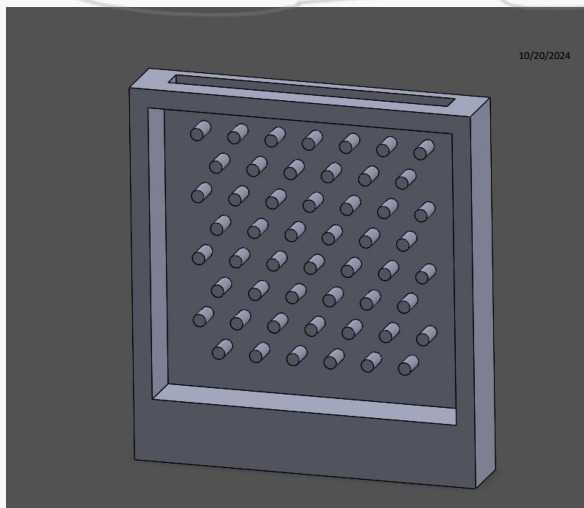
- this is good progress
- need to start thinking about how I will print it all



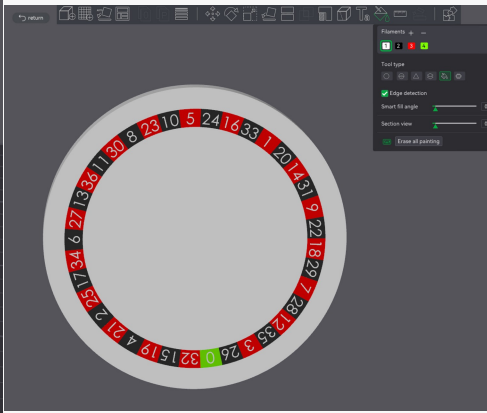
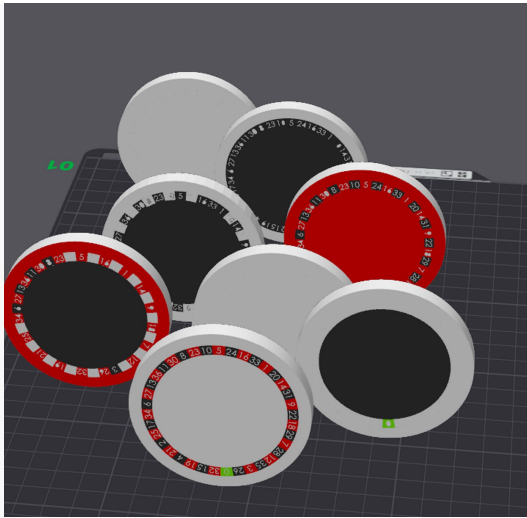
- an attempt to model Plinko beams
- kind of hard to think about bc I need to scale it in inches to print it
- this will be revisited another time

D3 notes

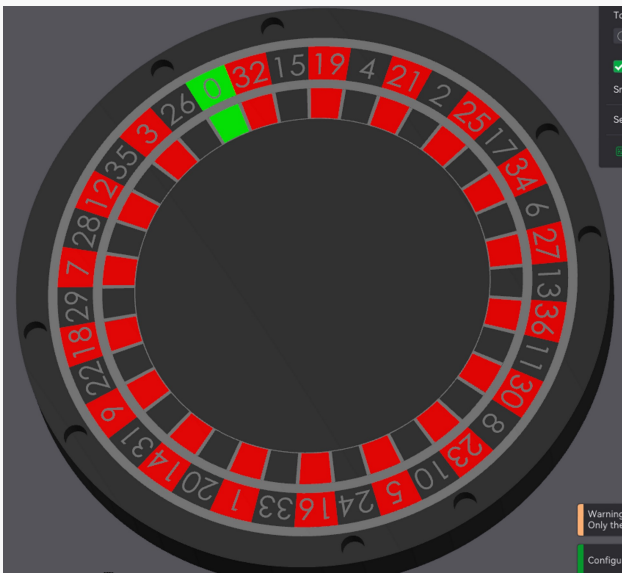
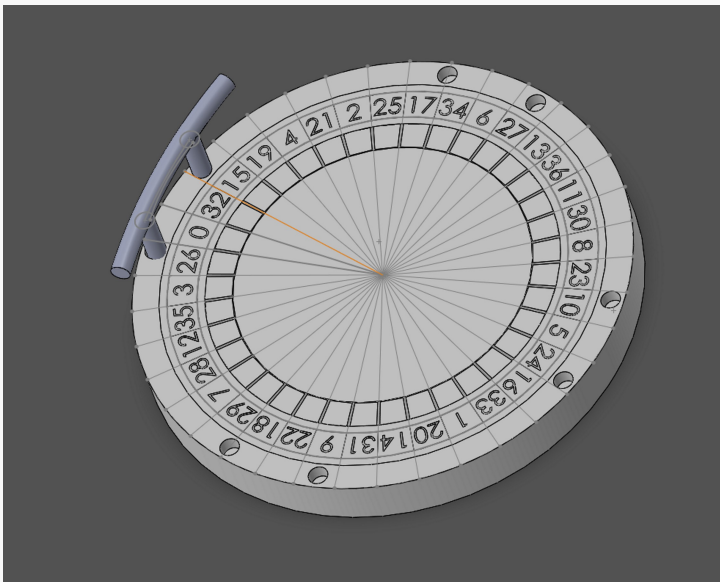
- modelling started
- might start printing next week? or spend more time modelling
- need to finalize my third feature



10/20 / 2024

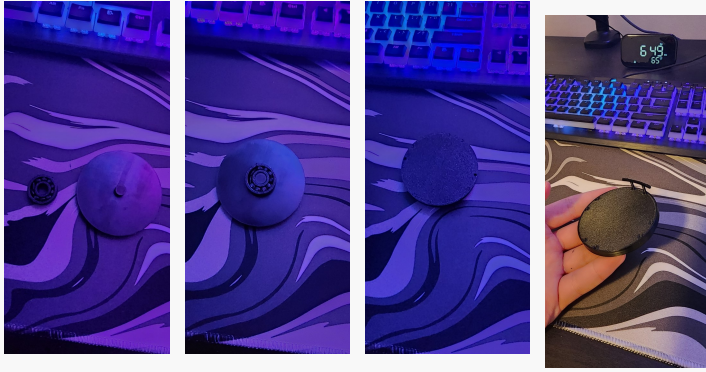


10/31/2024



— through a bit of trial & error, I confirmed I can print the roulette wheel w/ its color

11/01/2024



- Quick prototyping

↳ The bearing fits, the rails have clearance to fit

↳ time to print



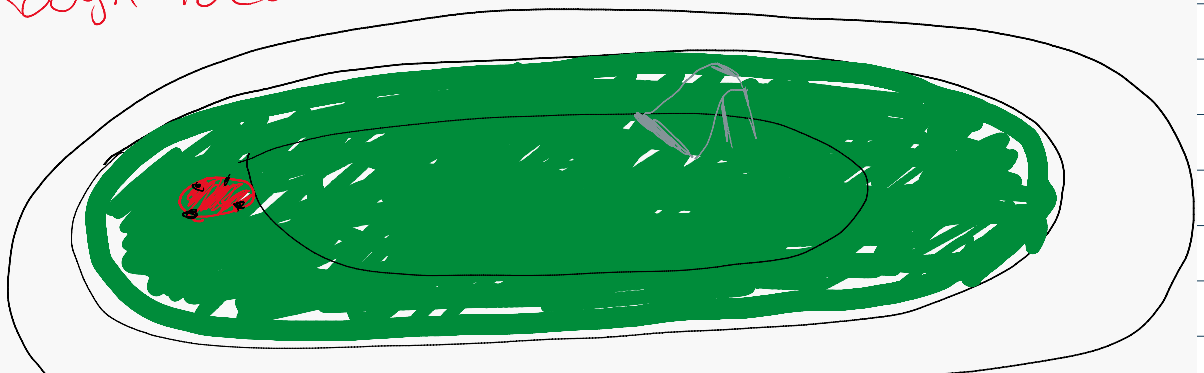
Progress
baby 😊💰

11/05/2024

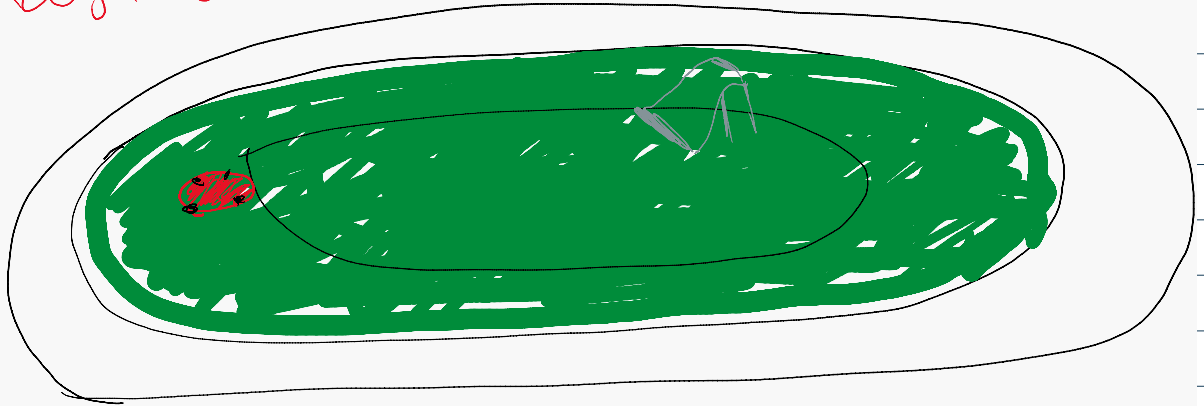
- I want to finalize idea 3.

- this week I may focus on modelling & printing plin ko

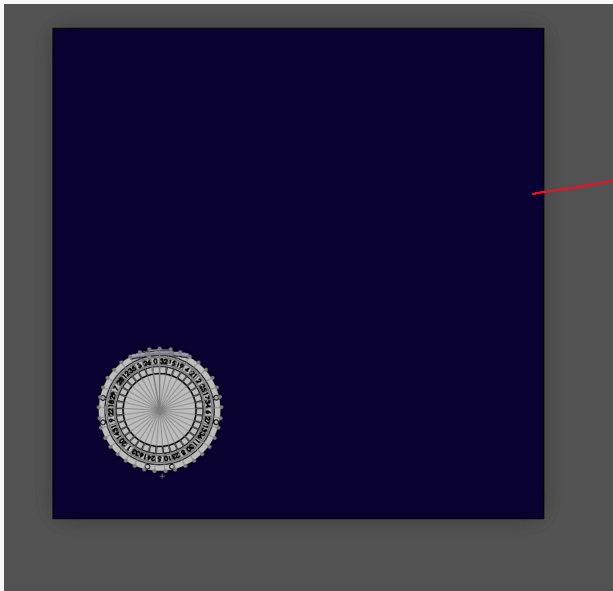
Rough idea



PROG -



- some way to have a large scale table that can be walked on
- large chips & cards?
- a slide that acts like a deck shoe?
- large dice?



This is the model I will print.

this is how much space my remaining features have

Rough Idea 2

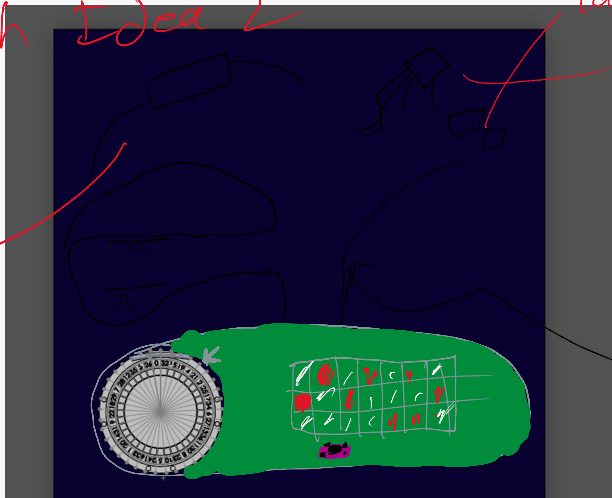


photo of other spinners

large dice

dice slide structure

- place large chips next to the wheel
make the ground like a table

maybe benches that have the suits?

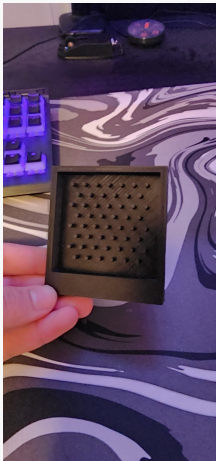
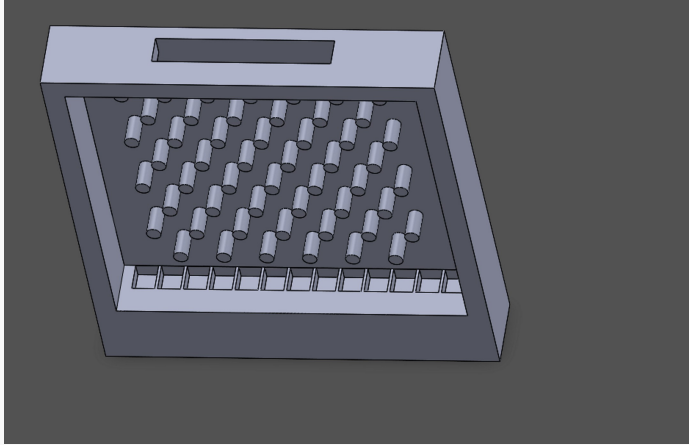
SPINNING



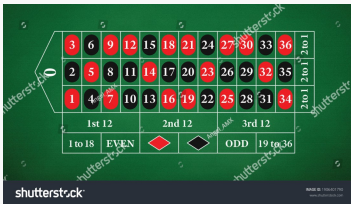
that have the suits?

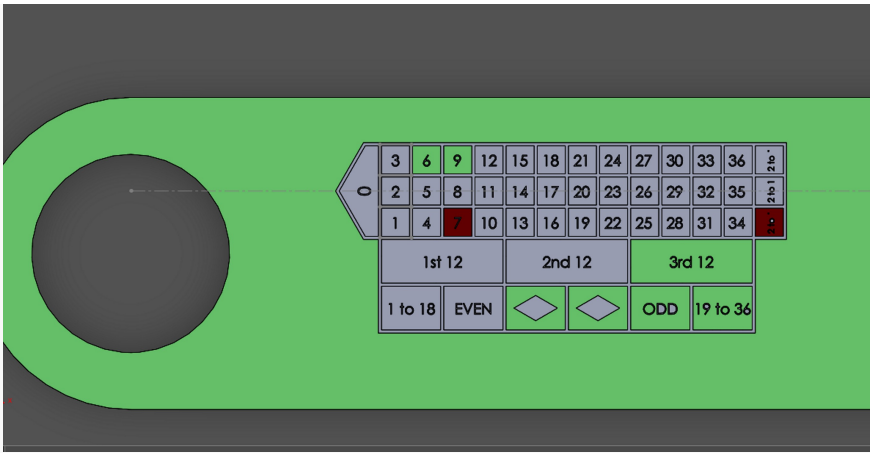
I low key like this idea

-Also should probs add a little gold piece in the middle of the wheel



it may be of interest to shrink this just a bit



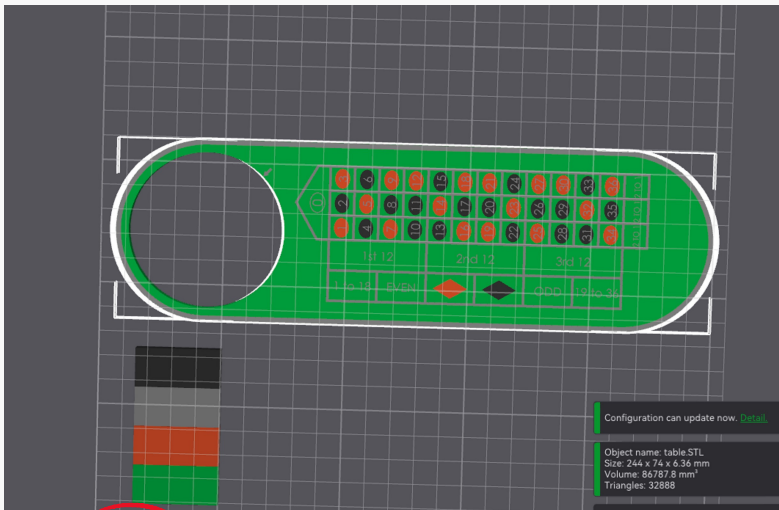


Cba to color it in solidworks bc I will have to color it in the slicing software anyway

11/07/2024

-I will lock in this weekend and make more progress :pray:
-I have the idea in mind now, just need to model it.

11/09/2024



Configuration can update now. [Cancel](#)

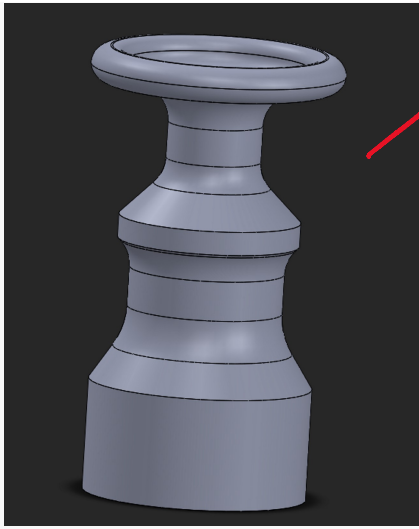
Object name: table.STL
Size: 244 x 74 x 6.36 mm
Volume: 86787.8 mm³
Triangles: 32688

progress
baby \$\$

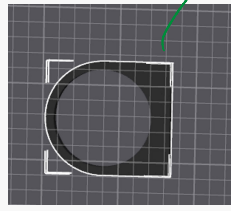


realizing I forgot this

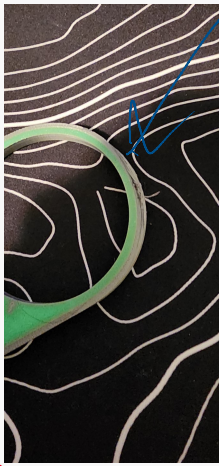
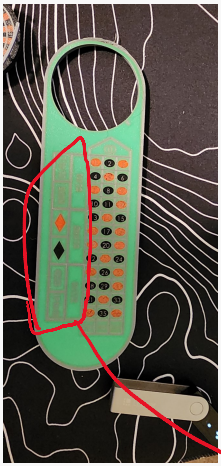
quick model



test printing to fit for clearance



11/10/2024



defect

- not the best :/

- maybe white instead of gray?



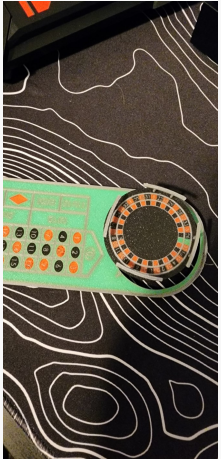
current design



new design?

might have to do this

if print quality continues to be bad



- it would be wise to make the hole a little wider. on this model, the fit was super snug

really need a better way for this to be legible

biggest problem - I'm limited to four colors. so there is no way for me to use gold or anything

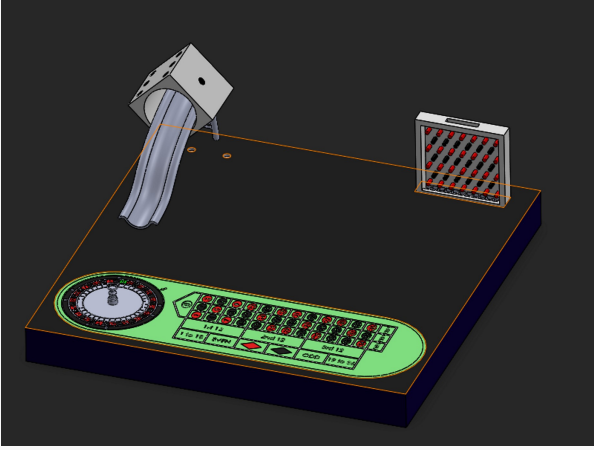
- it could also just be a filament issue

↳ maybe my red / green is too brittle

- not too worried about the model if it isn't perfect

- not too worried about the model if it is n't perfect

11/15/2024



- Some rough progress

- still need to make sizing accurate, as well as incorporate a "floor" pattern

↳ will just mix red/black/silver

- if I have space I will add tables and such

↳ I kind of want stuff next to the pinball machine anyway

[link](#) - hand book for slide dimensions

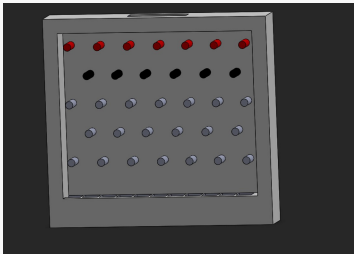


- I cut the base & test printed for clearance fittings

- the wheel spins freely & is fit

- the slide needs to be about longer

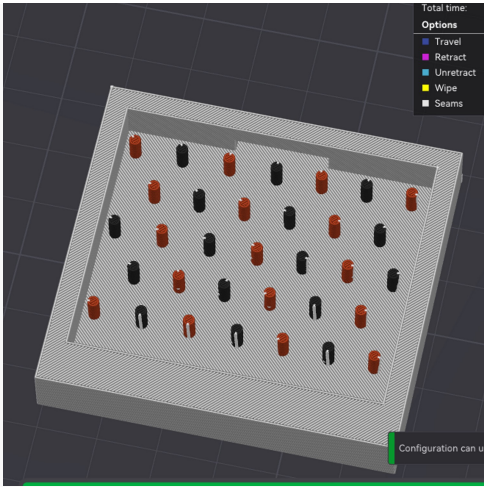
11/17/2024



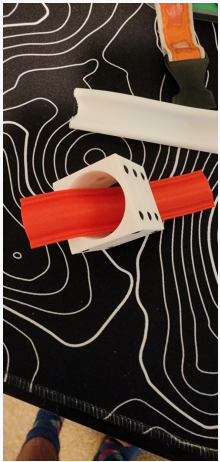
- slight change to pinball machine

↳ it's smaller

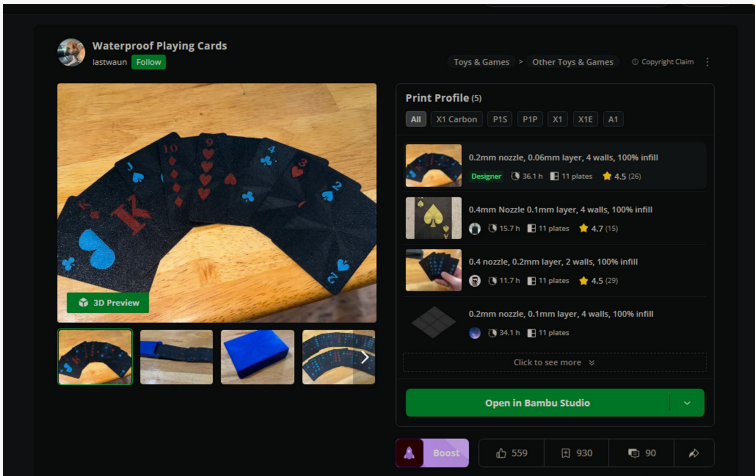
- the colors in Solidworks are NOT accurate



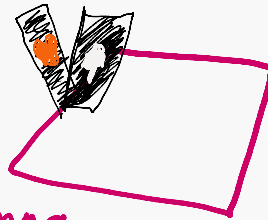
— this is what i'm printing



— the die & slide came out
 ↻ planning on these being in the final assembly

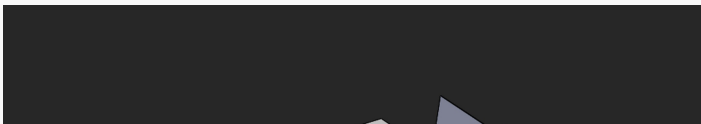


[link](#)
 I am interested in printing one or two of these and using as playground dealer

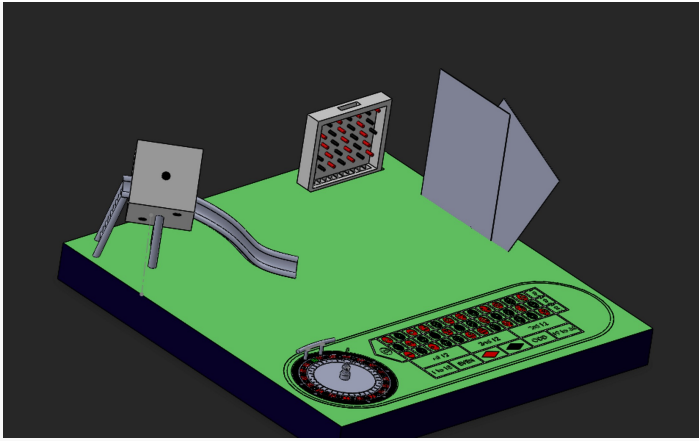


you get the idea

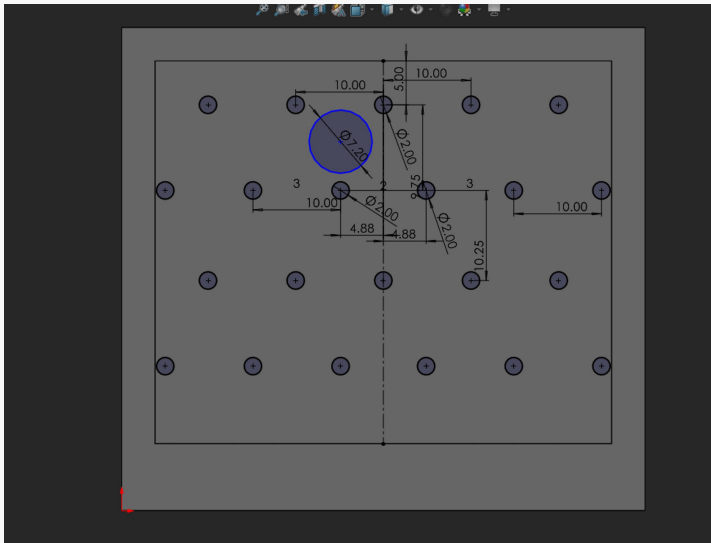
— one i'm close to done I'm gonna spend time compiling all used resources & links in one doc
 — the end is in sight ig



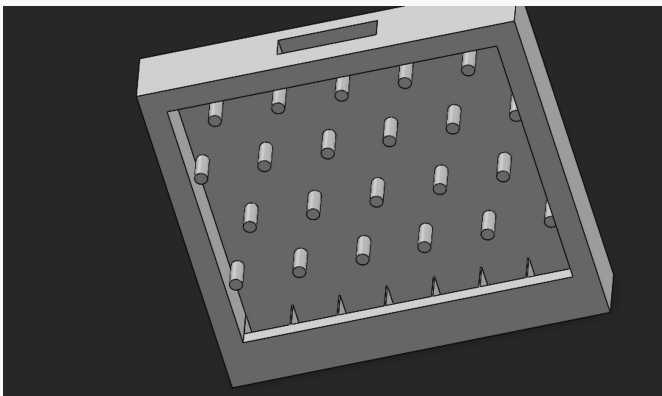
The base is green so I can see what I'm doing

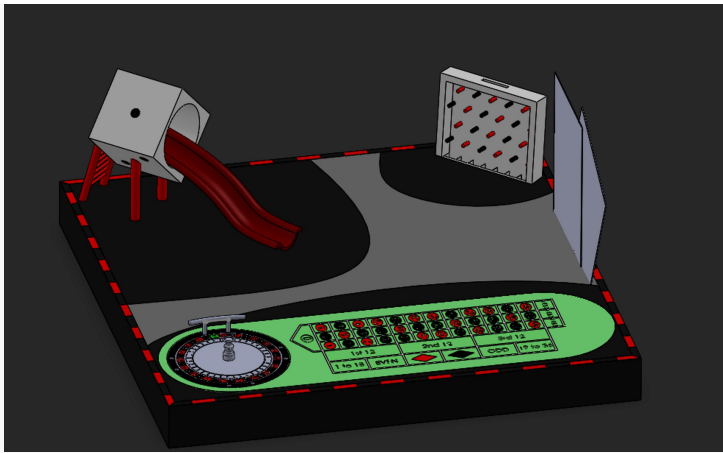


The base is green so I can see what I'm doing
The grey slabs are what would be the cards.
Placement can be different maybe but I think I will print the cards out and see if I can find a use
I worked on making exact dimensions and cutouts for the slide, hopefully it should fit with no issue



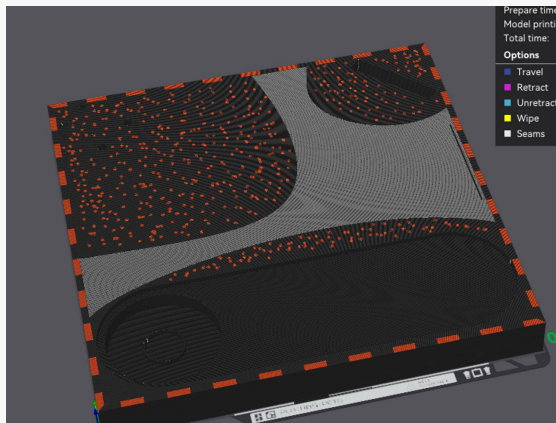
Slight changes
the poker chips can now be used



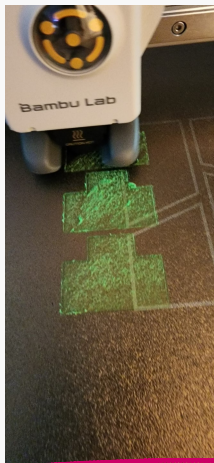
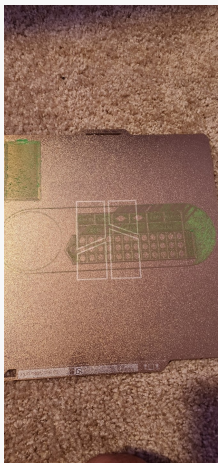


-this is how the projected final

-im having issues w/ my printer, so hopefully this is solid



-my attempt of making the surface look "fall absorbing"

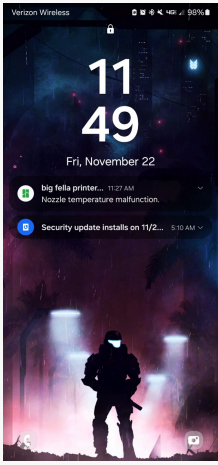


-running into a slight issue
-not really what you wanted see
-mainly an issue with 0.2mm nozzle

11/22/2024



- 0.4 mm nozzle should be fine

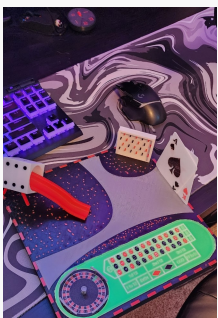


- yeah

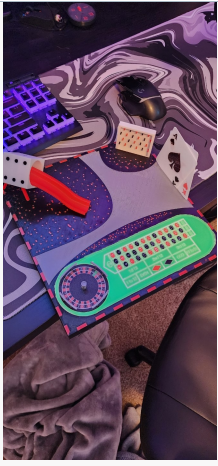


there is this wire latch to hold the nozzle. it snapped off
↳ I'm like 95% sure this is the issue
↳ can't be fixed in a reasonable time

11/24/2024

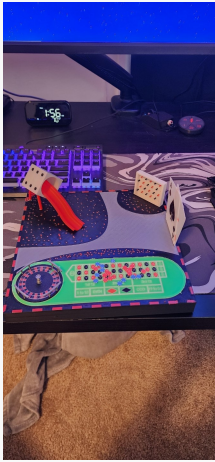
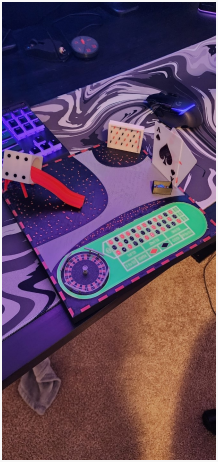


- this will probably be it
- i cannot avoid the print quality issues
- none of this is glued on either

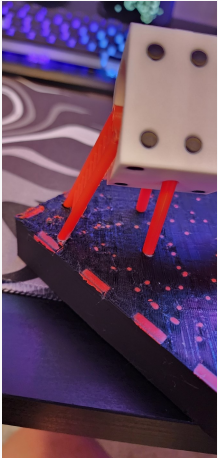


- this will probably be it
- i cannot avoid the print quality issues
- none of this is glued on either

11/26/2024



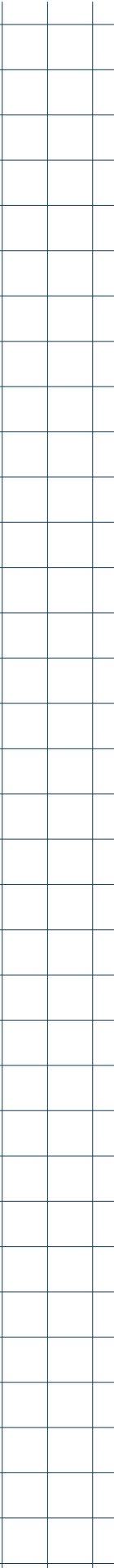
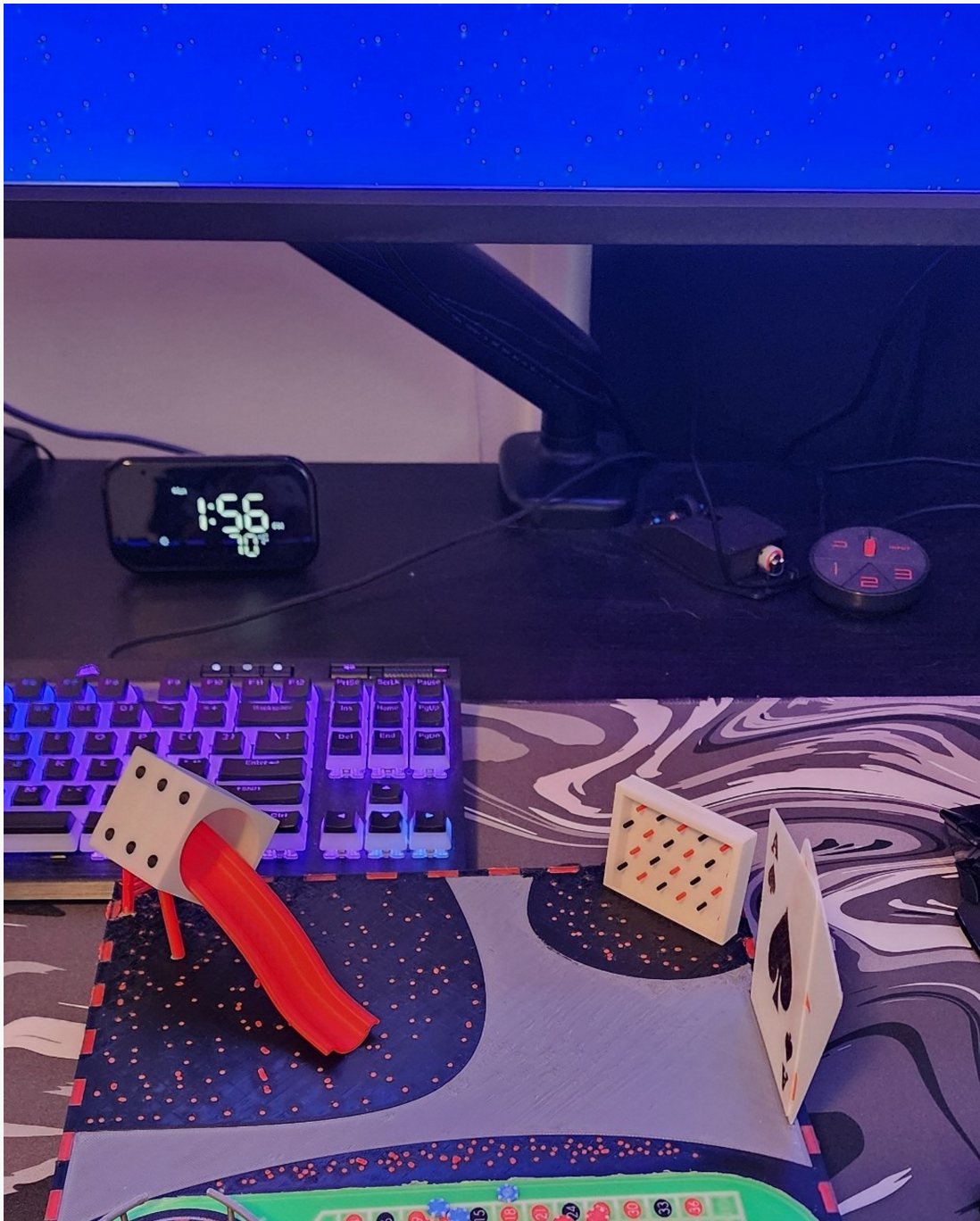
- that's it :fire:



Slight defects but I can't quickly fix this & i am also not the bread monster so I don't want to use more filament



↖ this is the final scrap pile





Link to bibliography
https://docs.google.com/document/d/1DeQW53h2bgiaqOXWscYzW_pnYbsV9DroWhlunEgKM/edit?usp=sharing

Link to files
https://drive.google.com/drive/folders/1VLKCEIH-QF40ANGERBQimuUexDXiv57?usp=drive_link

