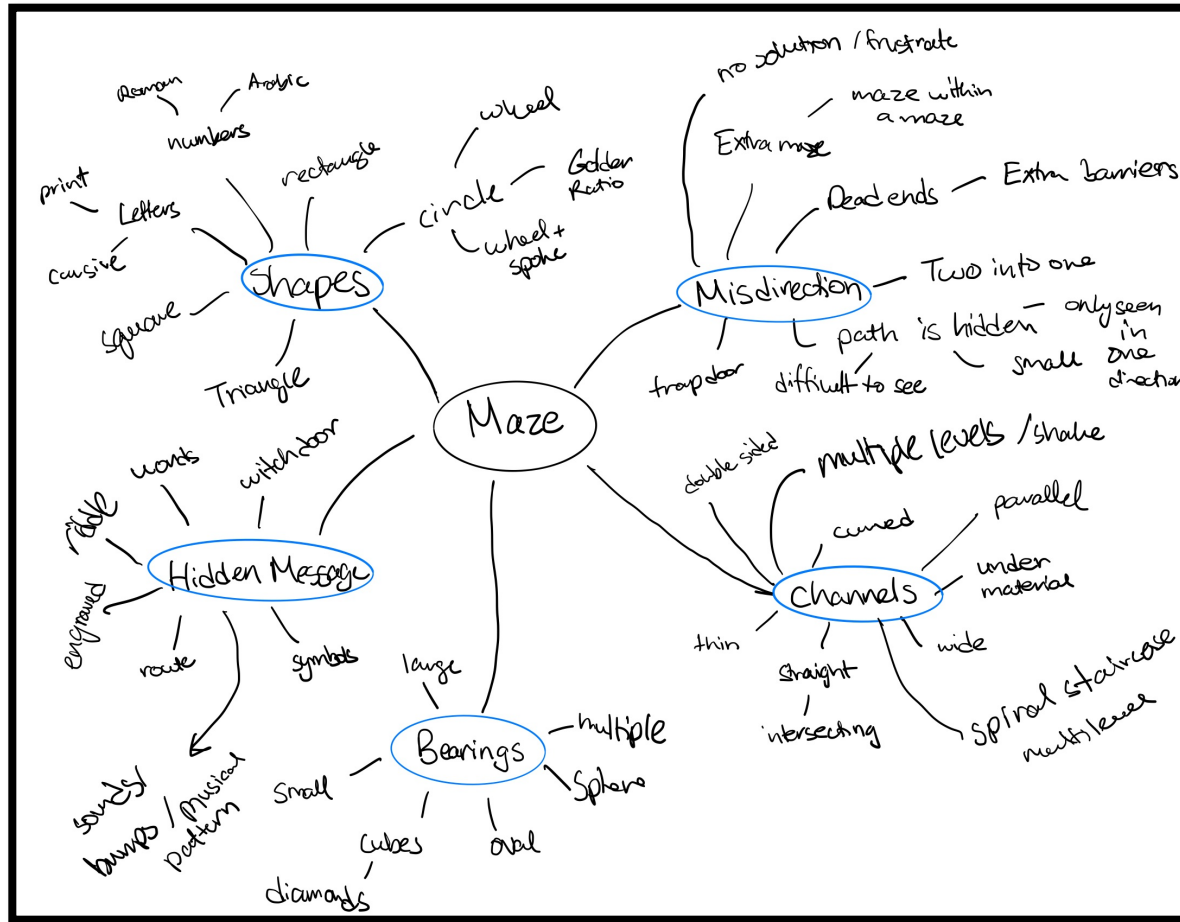


Maze Assignment

OMAR ELSEWIFY

SEPTEMBER 29TH

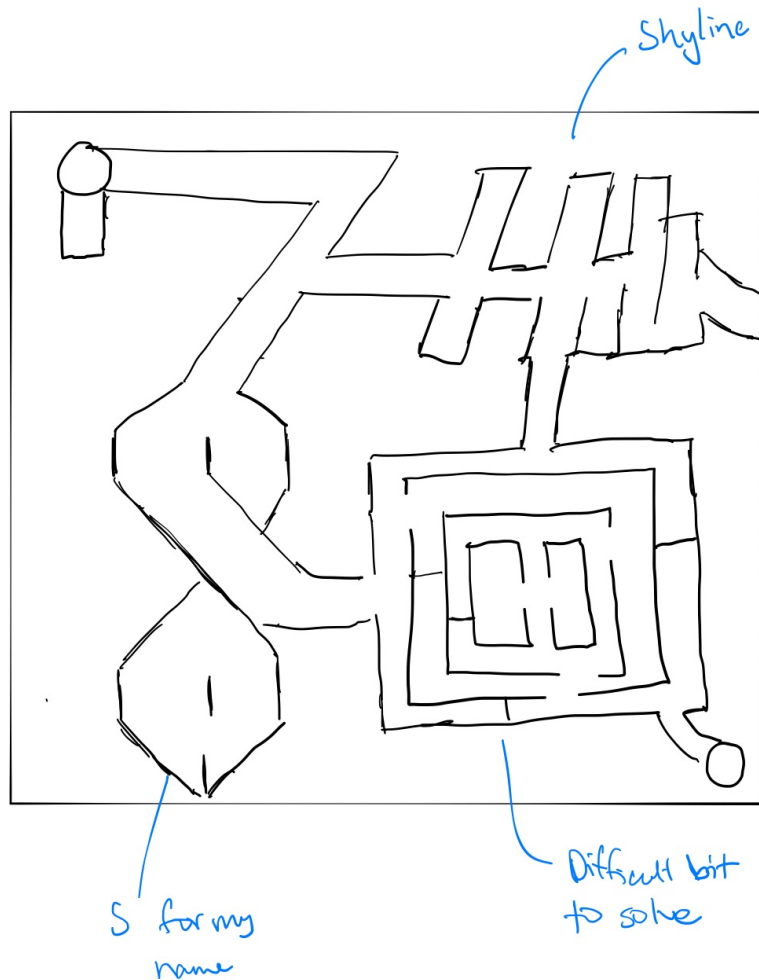
MY THOUGHT PROCESS



Process of Design Development:

1. 10-minute **mind map** construction
2. Sketched an initial maze to experiment with maze building
3. Took inspiration from Coaching session and learnt maze building
4. **Flared out** as much as I could and tried to jump from one thought to another
5. Took each flared maze item and **flared a bit more**
6. **Focused in** a bit more on the designs I liked
7. Designed a final concept which brought together what I enjoyed

First Concept Maze



What I liked:

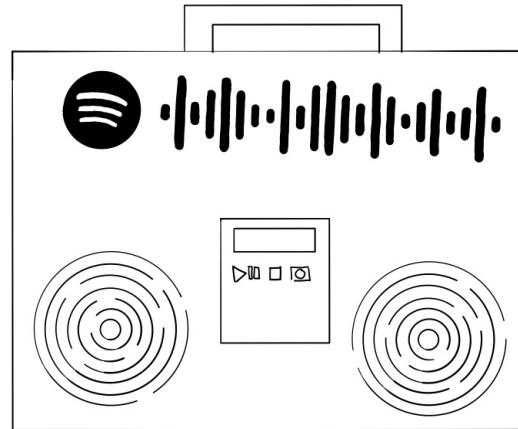
- The organization in the inner maze
- The misdirection
- Paths which resemble shapes

What could be improved:

- Lack of organisation
- Too many ideas into one
- Unclear what the purpose is
- Too much empty space

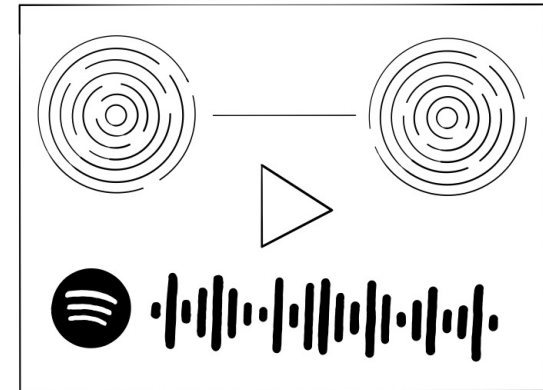
Personalized Spotify Concept

Boombox shape

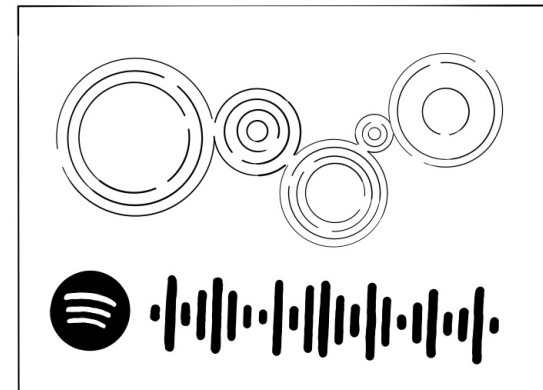
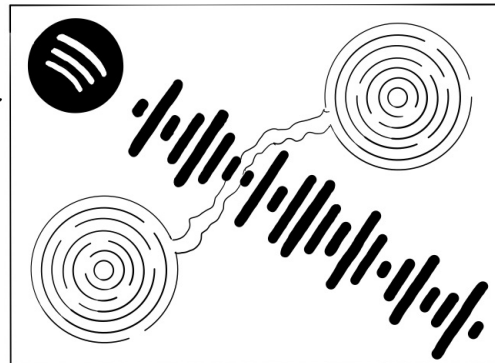


Could be very hard to create in CAD software

Face with play button nose



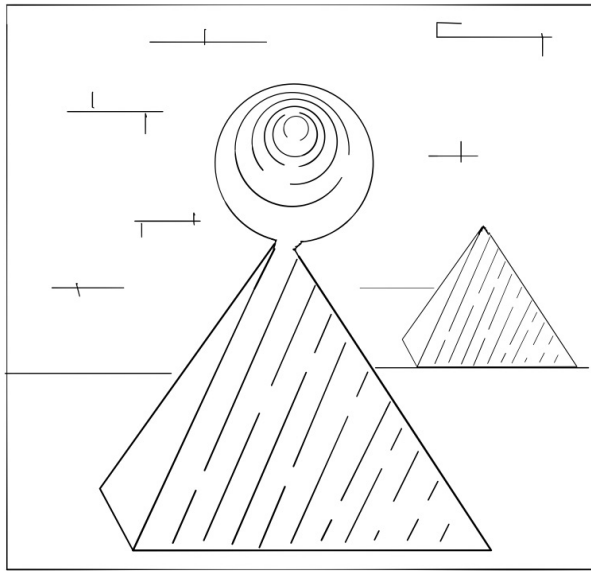
More of a design look with the maze being the aesthetic aspect



Bubbles / CD look

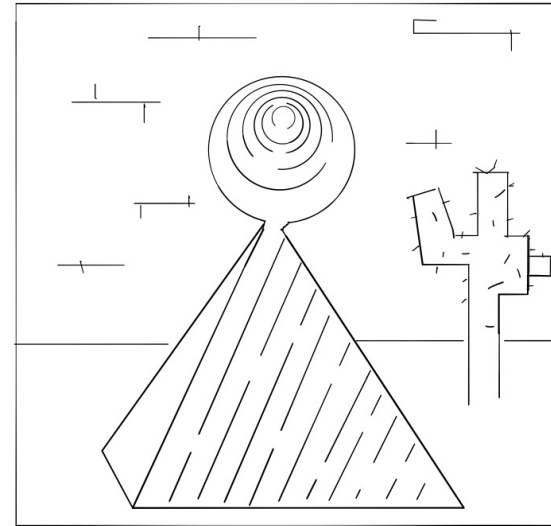
List 1:

Stars
Clouds
Suns
Birds
Desert
Sahara

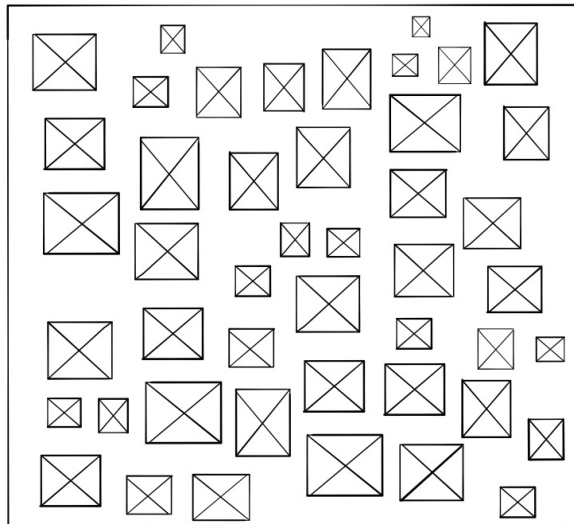


List 2:

Cactus
Plants
Snakes
Sand
Rocks



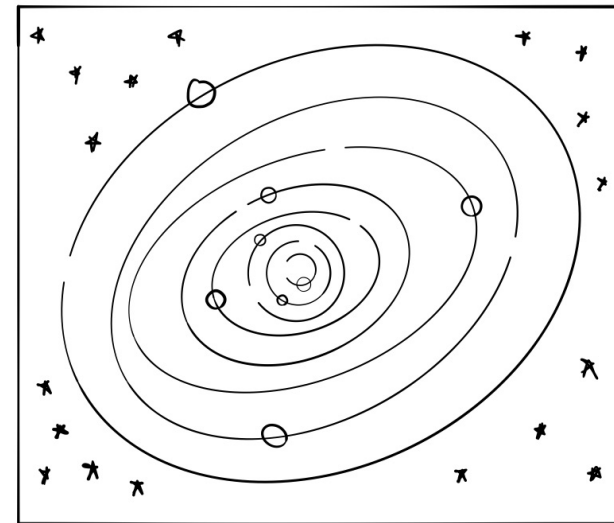
I like the
sun maze/
orbit look



could be
a bunch of
pyramids

no end goal / finish
just for entertainment

could be any shape
potentially



List 3:

Stars
Planets
Comets
Orbits
Sun
Shooting star

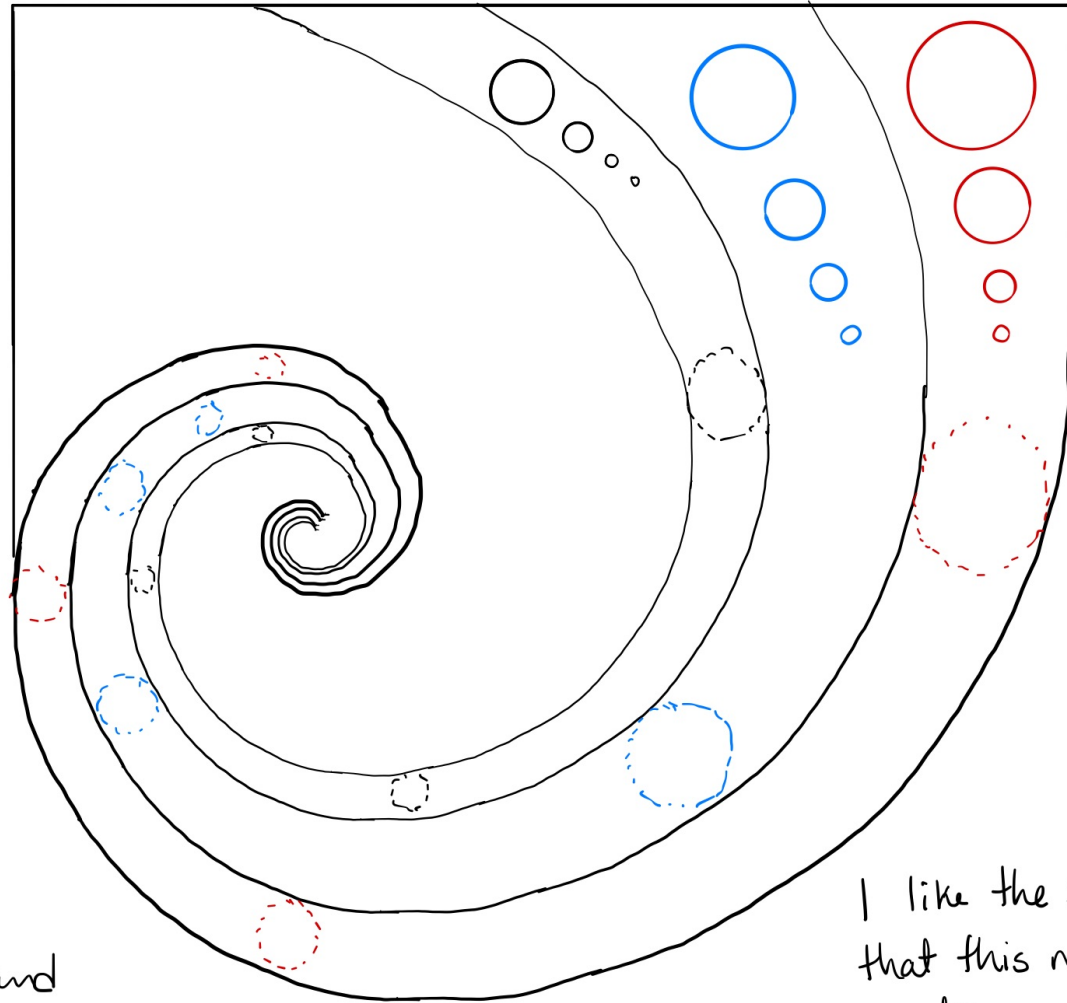
could use moon
rocks to replace pyramids

Golden Ratio Concept

Multiple balls
get stuck at
different points

No goal, design
just to see
what would
happen

- Could be very
hard to CAD and
code

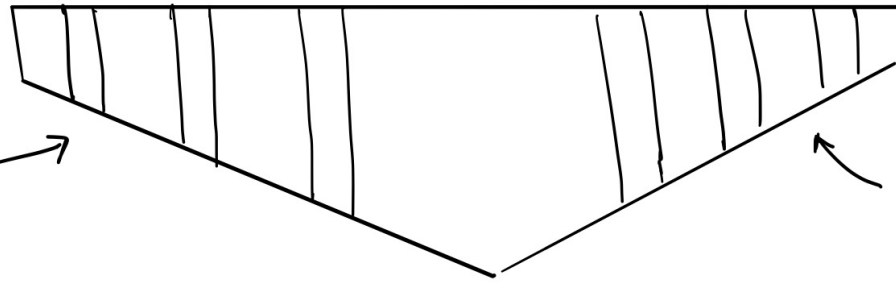


I like the shape
that this maze
creates

Two Person Maze Concept

• Side

Fingers
plugged
here



Person 2 fingers
cover here

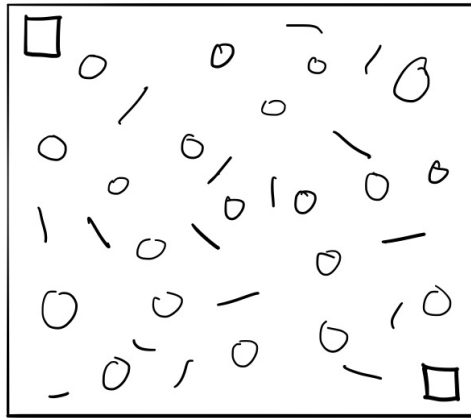


Tilted to avoid
cheating!



Designed to
enforce
failure
↓
Cooperation
is the result

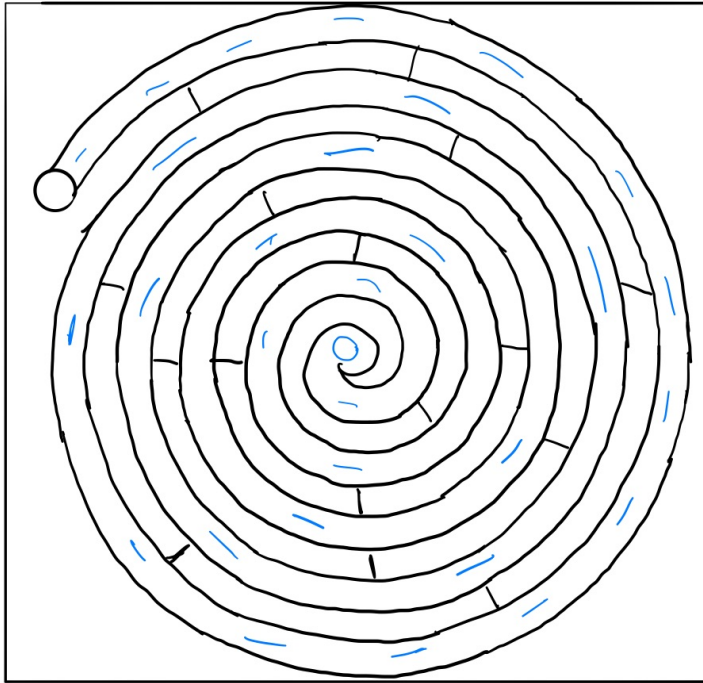
Top



20 holes of
different
sizes



Self Solving Maze



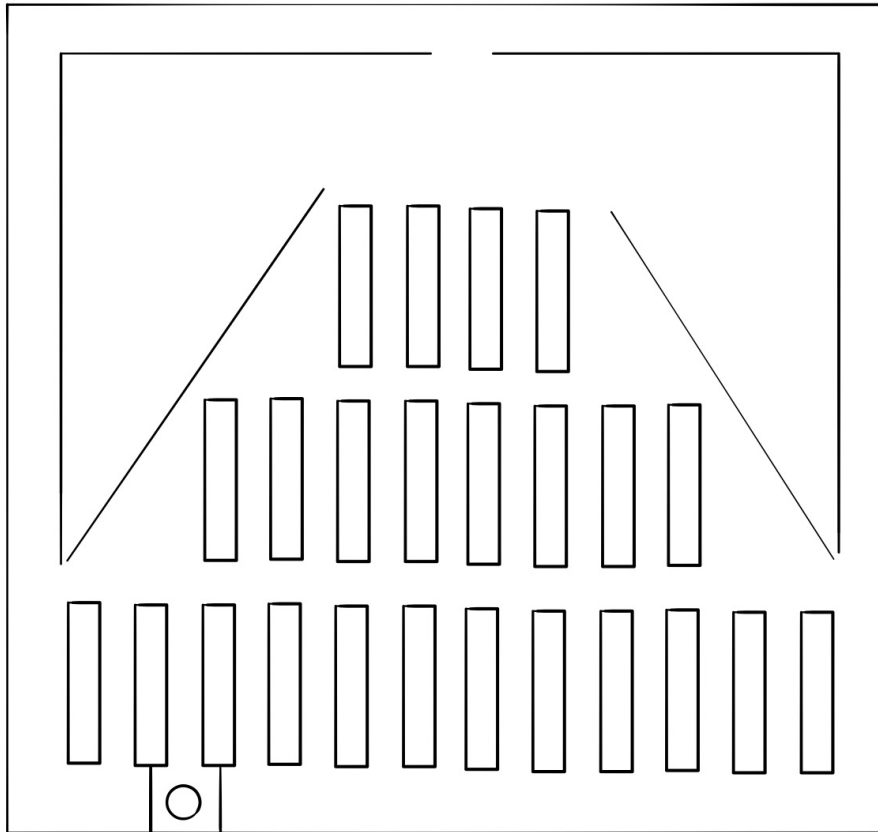
← Solution is hidden in plain sight

Parking garage inspiration



← lie the maze down and ball bearing will do the work for you

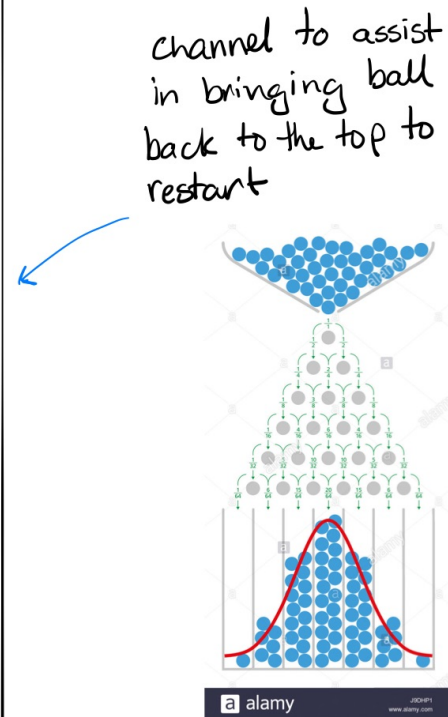
Normal distribution maze/ Galton Board



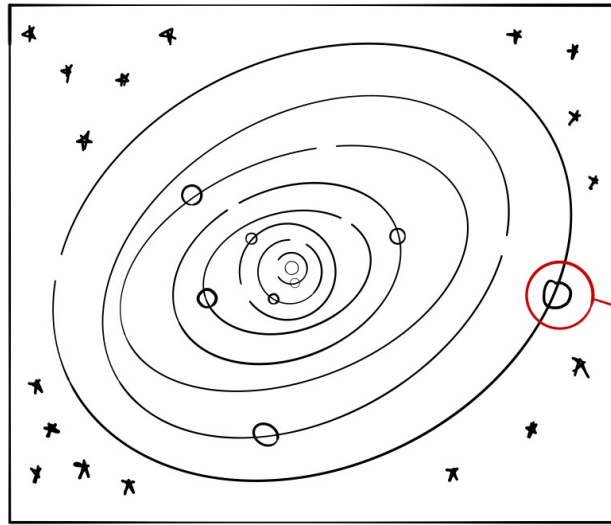
Very low probability
of landing in the right
hole



OCD-like satisfaction
is the purpose



Final Design Idea

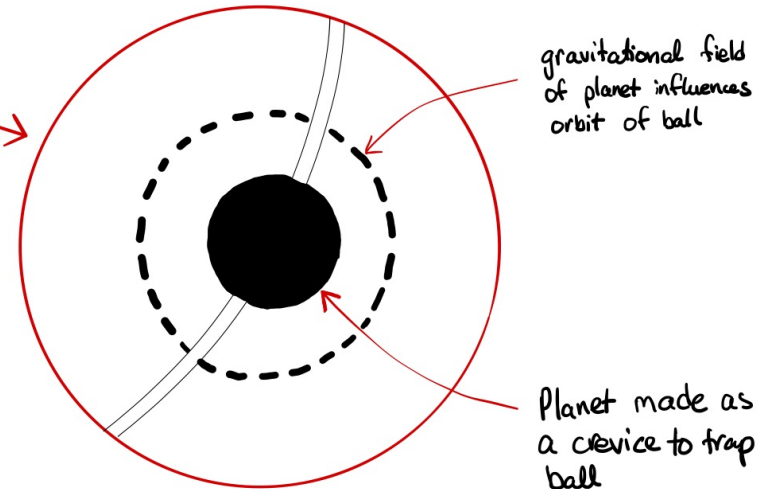


Top View

Cross Section View



Donation wishing well



gravitational field
of planet influences
orbit of ball

Planet made as
a crevice to trap
ball

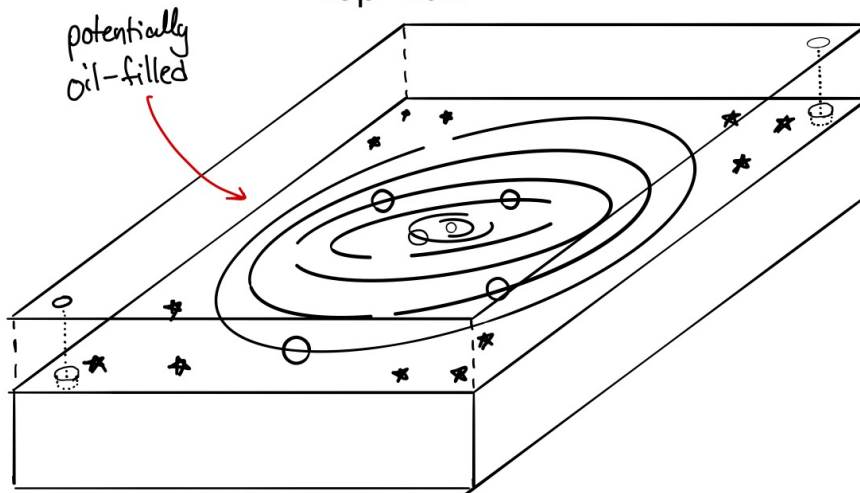
Design features:

Space is very simple and aesthetic

Fun to play with going around in orbits

Eight planets + Sun + Multiple stars

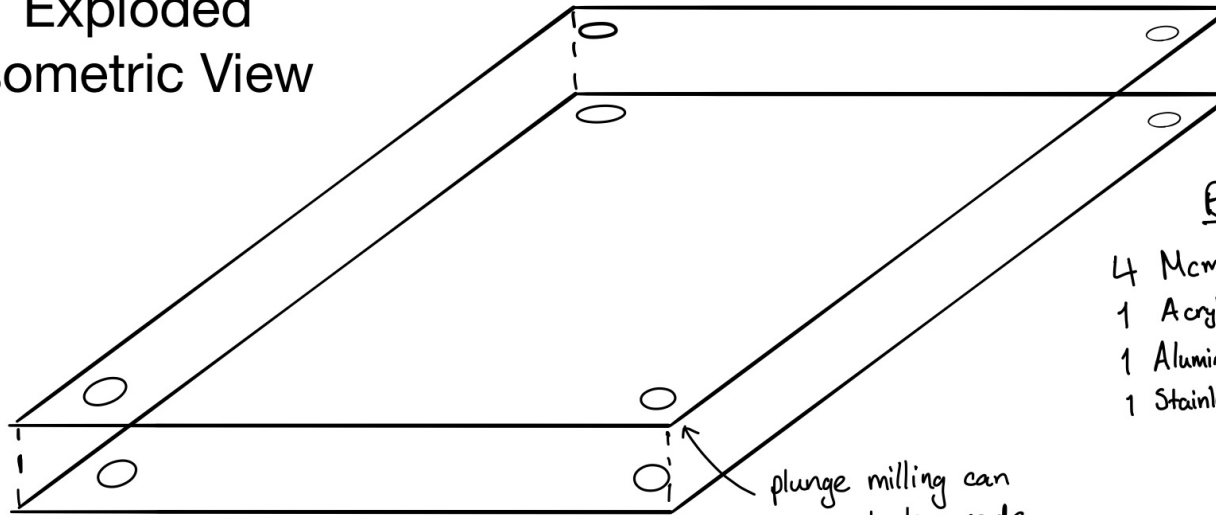
Ball bearing appears to orbit the sun just
as a planet would



potentially
oil-filled

Isometric View

Exploded Isometric View



BOM

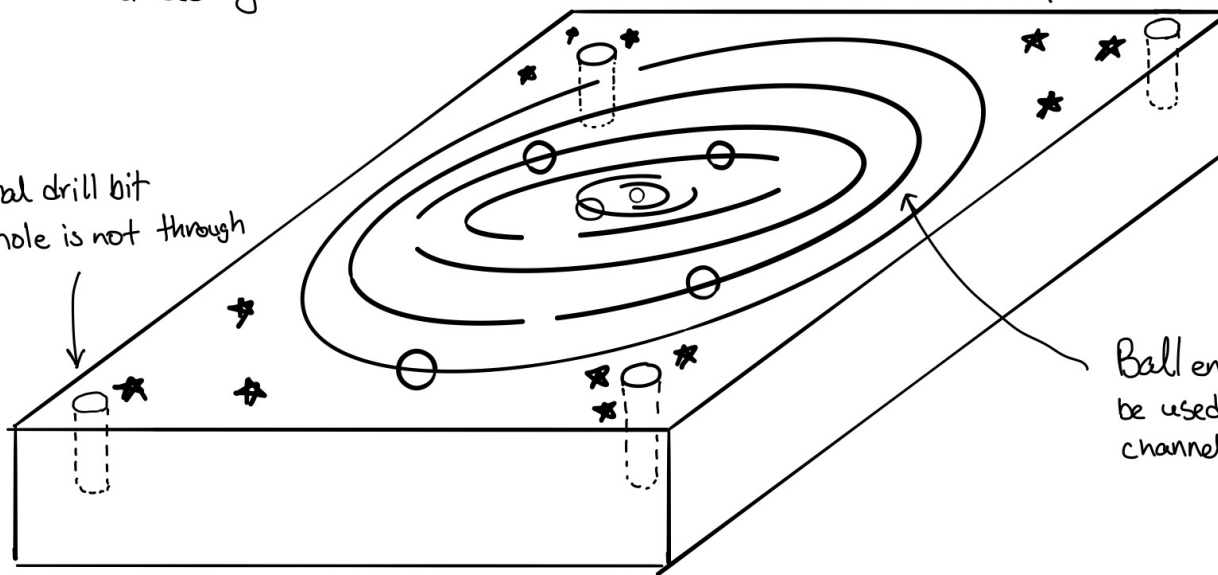
- 4 McMaster fasteners
- 1 Acrylic sheet 3.5" x 3.5" x 0.25"
- 1 Aluminum block 3.5" x 3.5" x 0.25"
- 1 Stainless steel bearing 0.125"

Thread can be added by hand

plunge milling can be used to create through-holes

star shapes can be tapped into surface

up spiral drill bit because hole is not through



Ball end mill could be used to make the channels smooth