

# Headset Holder

Compiled Slides

# Headset Holder

Parker

# Phones of thy Head, where doth thou go?

*GOAL: Create and decorate a wooden stand to hold my headphones.*

## Primary Functionality:

- Standing upright.
- Holding the weight of my headphones.
- Inobtrusive.

## Secondary Functionality:

- Fits in aesthetically.
- Minimal space requirement.
- Durable.
- Easy to reach.

## Constraints:

- **Size:** Fits on my desk
- **Weight:** Supports the weight of my headphones.
- **Unit:** My headphones and maybe the cord.
- **Prototype Materials:** Cardboard and tape to determine the structure.
- **Interface:** Sits on my desk and is easily

## Manufactum - \$155

### Overview:

- Parabolic shape.
- Holds the headphones open

### Pros:

- I like how it looks.
- You can see through it so it doesn't take up as much visual space.

### Cons:

- The curvature would make it difficult to build using wood.

### Takeaways:

- To bend the wood I could either saw kerf it or soak it in boiling water.



## Corsair - \$70

### Overview:

- Square base
- Rgb lighting

### Pros:

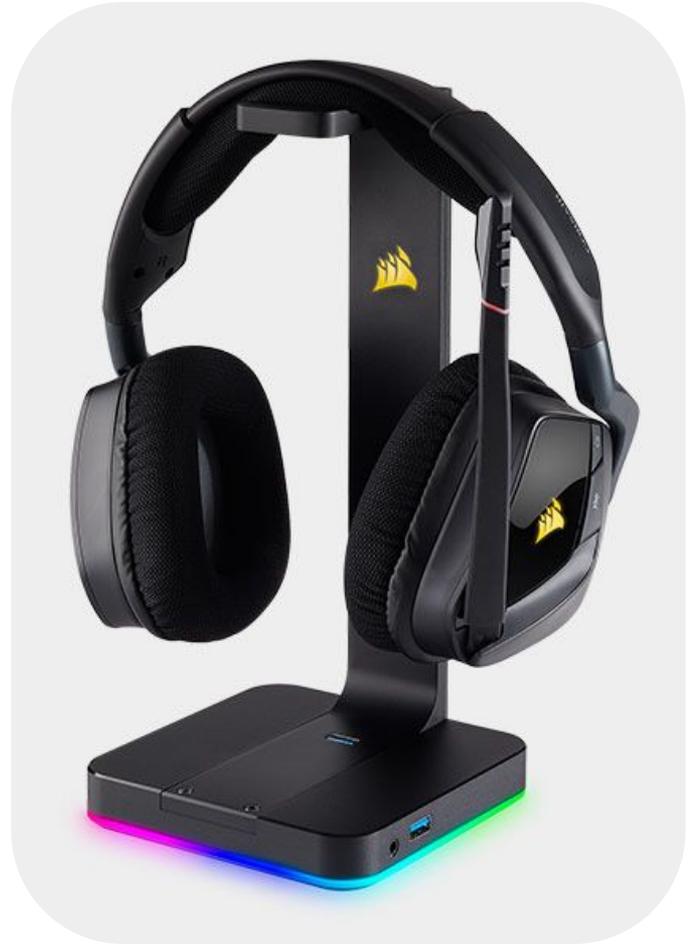
- RGB
- Simple design

### Cons:

- Needs electricity.

### Takeaways:

- I could get LED strips for the lighting but it isn't really necessary.



## Avantree - \$30

### Overview:

- Basic design with some variation
- Aluminum and wood.

### Pros:

- Divet on the top so the headphones don't slide.
- Area to coil the cord

### Cons:

- Complex design would make it hard to build.

### Takeaways:

- The extra features would be useful but I would have to learn how to cut the wood precisely.



# Takeaways

- There are many different designs.
- A curved structure is an option.
- I may want to include a feature for organising my headphone cable.

# Ideate and Design

2.23.21

# Key Features

## Key Feature: Mantle (top)

Knowns:

It will have a bevel to keep the headset from sliding off.

Needs to be able to support the headphones

Unknowns:

Will I use nails or wood glue?

Tools needed

## Key Feature: Body (middle)

Knowns:

It will be 35 cm tall minimum.

Made of wood

Unknowns:

Type of wood

How much wood will I need

## Key Feature: Base (bottom)

Knowns:

It will have at least the same radius as the length of the hook.

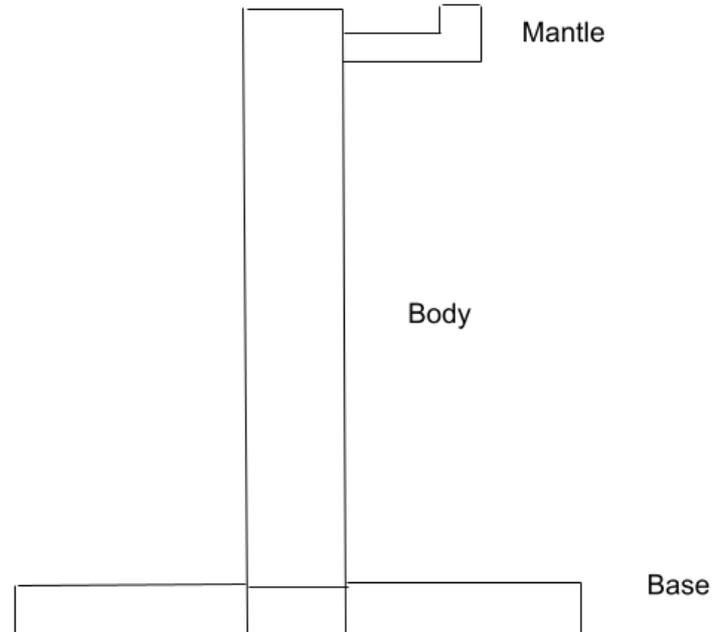
Probably in the shape of a rounded square 15 mm tall

Unknowns:

Where I will get the supplies.

## Primary Functionality

- Securely holds headphones
- Stable
- Unobstructive



# Key Feature Approach

## **Base**

- Rounded square shape
- 2-3 cm tall with 20 cm side length

## **Notes / Takeaways:**

- Needs to be wide, thick, and flat enough to keep the structure from tipping.
- Rounded shape makes it look less sharp

## **Overall**

- Minimalist design
- Wood, painted
- Will use jointing to connect the parts if possible, nails or glue if not.

## **Body**

- Rectangular prism with bevelled edges
- 30 cm tall
- 5 cm side length
- Centered on base

## **Notes / Takeaways:**

- Fits with square aesthetic
- Centered on base to keep balance
- Flat edges to maintain some polygonal structure without being too rigid.

## **Mantle**

- Two parallel protruding cylinders or one flat plank
- Protrudes a couple centimeters from top of body.
- 10 cm length

## **Notes / Takeaways:**

- The cylindrical design would look nice but might be harder to make.

# Prototype Design

## **Prototype Goal:**

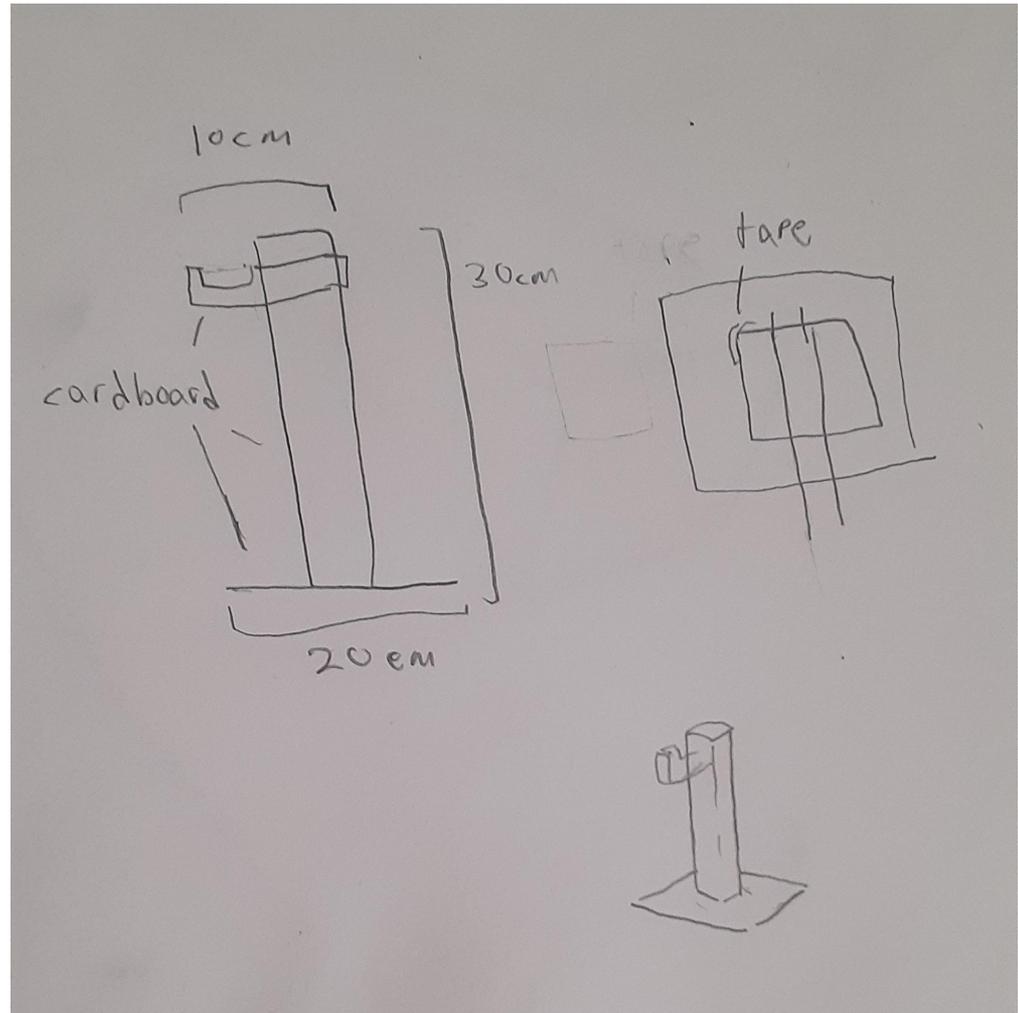
- Make final decisions on the design
- Test the structural endurance
- Test different jointing methods

## **Approach:**

- Construct the three parts out of cardboard
- Try to fit them together without tape

## **Materials:**

- Cardboard
- Tape?
- Scissors
- Measuring tape



# Build, Test, Evaluate Prototype

3.17.21

# Prototype Build

## ***Approach:***

- Cut the needed shapes out of a cardboard box.
- Use packing tape to keep it together.
- Make two holes in the top area that go through both sides.
- Insert pencils.

## ***Something I liked:***

- It accurately resembles how I want my finished product to look.

## ***Something I will not do again:***

- n/a, nothing was wrong with it.



# Prototype Test

## ***Test objective:***

- To see how long it would hold and where the breaking point would be.

## ***Test method:***

- Put the headset on it.

## ***Test criteria for success:***

- I wanted it to hold for around 5 seconds

## ***Evidence: (see video)***

- It seemed to be able to hold together indefinitely, though the tape on the opposite end of the mantle lifted up a little.



# Phase 1 Prototype Evaluation

## *Aspects of my prototype that I like:*

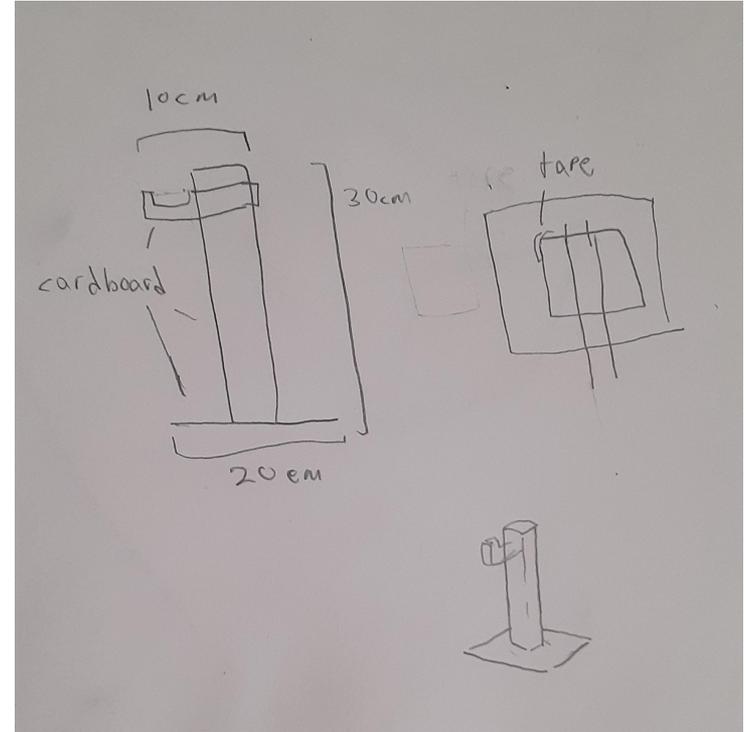
- It holds together well
- It resembles the final product.

## *Aspects of my prototype that I did not like:*

- The packing tape might not be an accurate simulator for wood glue.

## *Improvements for the next iteration*

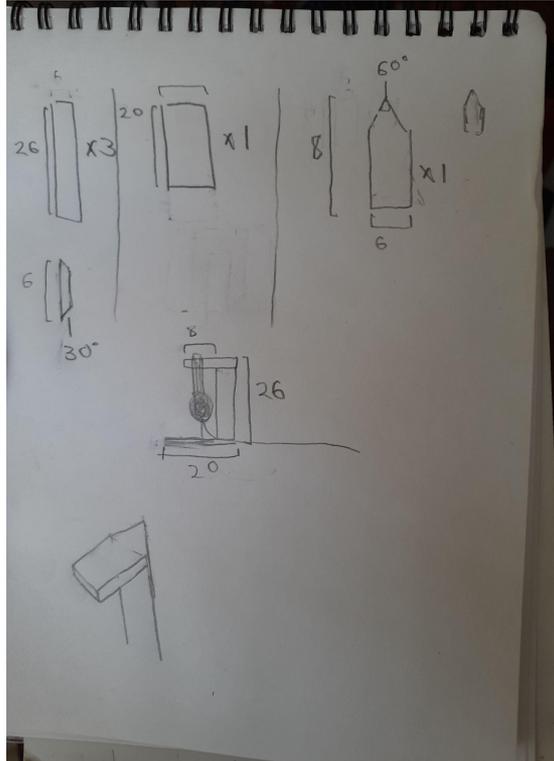
- I may want to focus on reinforcing the connection between the base and body on my final product.



# Rough Draft

4.20.21

# Rough Draft Design



## Materials:

- Wood
- Wood glue
- Wood finish

## Tools:

- Table saw
- Sand paper
- Foam brush
- Pencil
- Measuring tape

# Rough Draft Build

## ***Approach:***

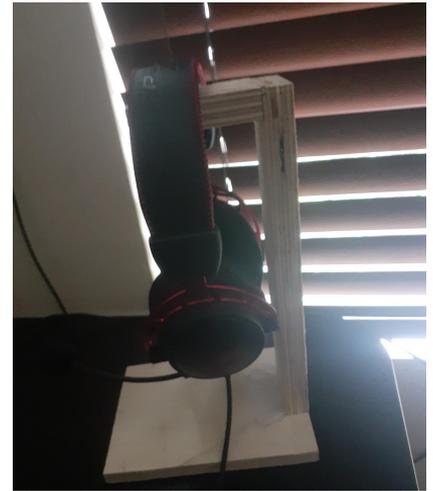
- Simple
- Actual size

## ***Something I liked:***

- It holds together well

## ***Something I will not do again:***

- I'm going to use glue instead of screws and make a triangular body.
- Slight changes to dimension.
- I'll try to cut the wood a bit cleaner next time.



# Final Draft

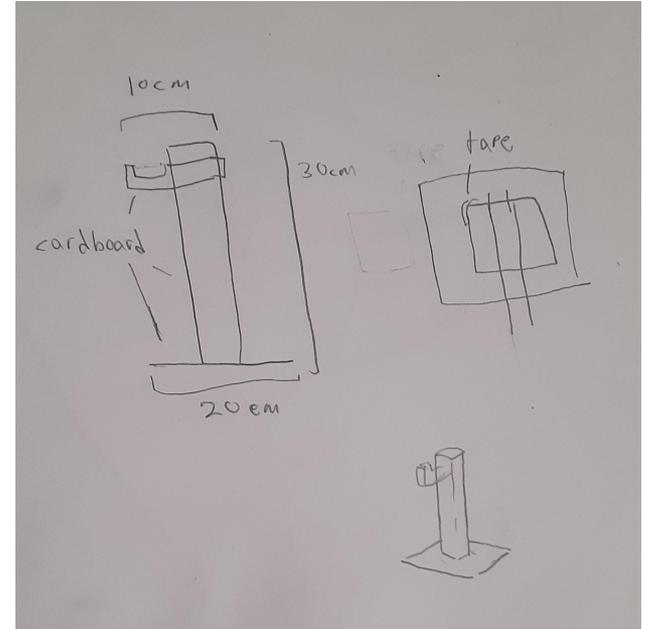
Headset Holder - Parker

# Design

**My final design included a square base with a small bevel, a hexagonal body, and a mantel with a support beam.**

**The basic structure was inspired by commercial headset stands that I found online, this helped to make sure it would be stable and not require too many iterations.**

**My design has changed slightly since its prototype, but the dimensions are mostly the same. The only key feature is holding headsets.**



# Build

**I built a standing mantle to hang my headphones on. The steps I**

**I decided on its dimensions, cut the wood, and glue/screwed the pieces together.**

**I built my design around what I thought I could easily do so it went relatively smoothly.**

**I probably could have done more given the time.**

**I like that my final is functional, has multiple features to make it look finished, and has nice wood.**

**I was surprised by how easy it was to construct the parts I needed.**

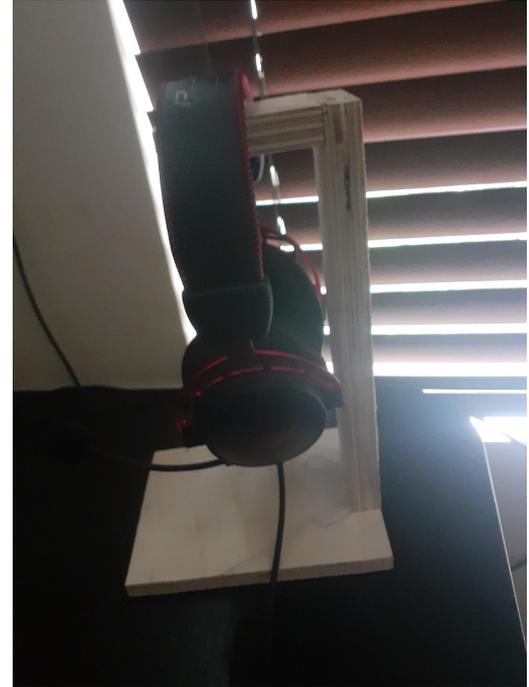


# Testing

**I did user testing on my rough draft by using it every day.**

**My criteria for success included: remaining stable under the weight of my headphones, not getting in the way.**

**In the end, both of my criterion were fulfilled which indicated that the final product would work.**



# Evaluation

**I built a standing mantle to hang my headphones on using wood, glue, and screws.**

**I like that my final is functional, has multiple features to make it look finished, and has nice wood.**

**If I were to do this project again, I would add more features such as a hook for the headset cable.**

**The final product satisfies all of the primary and secondary functionalities as it is stable under the weight of my headphones and doesn't get in the way.**

