

# Compiled Slide Deck

Elle Davis

**Define & Explore:**

# Goal: Create hanger/organizer for masks

## Primary Functionalities:

To make something that my family can use in their everyday lives that is:

- **functional**
- **looks nice** in our house
- makes our lives more organized

## Secondary Functionalities:

- pleasing colors
- accessibility (for example, my sister who is shorter than me can reach it)
- minimal design?

## Constraints:

Needs to be:

- Sturdy enough to hold weight of multiple masks
- Needs to fit within space next to my front door

# Research Idea 1

## Overview:

- 3 hangers
- Storage unit on top
- Labels
- places for dirty masks

## Pros:

- Easy to use
- Labels make it more clear where things are
- Masks are accessible on hangers



## Cons:

- Too small area for dirty masks
- Not enough hangers
- Looks like it belongs in an elementary school not house

## Takeaways:

I like the different categories and how the hangers have 2 hooks each

# Research Idea 2

## Overview:

- Drawers
- Labels for mask owners

## Pros:

- Easy to use
- Labels make it more clear who's are who's
- Masks are accessible



## Cons:

- No place for used masks
- Could still look messy

## Takeaways:

I don't really like this design as much because it is more work to open a drawer and can't be hung on wall so no place for it by my door.

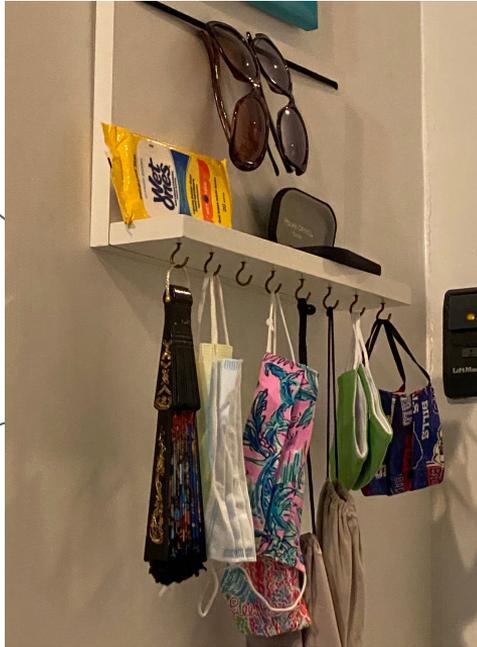
# Research Idea 3

## Overview:

- Hooks below shelf
- Organizer on top

## Pros:

- Easy to use
- More hooks
- Can be used for other things



## Cons:

- No place for used masks
- Not as much storage space above

## Takeaways:

I like this design but would add a place for used masks and maybe labels and larger overall

# Takeaways and Thoughts

- Hooks seem to be the most common method of organization
- Lots made from wood planks or plastic
- Can have multiple uses
- I like the ones having mask discard designated areas
- And I like those that have space for disposable vs. cloth ones

Ideate & Design

# Primary Functions/ Key Features:

1) **PRIMARY** functionality

- ① Keep masks organized
- ② Look nice in house
- ③ Accessable for very one

(Secondary)

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2) **KEY** features

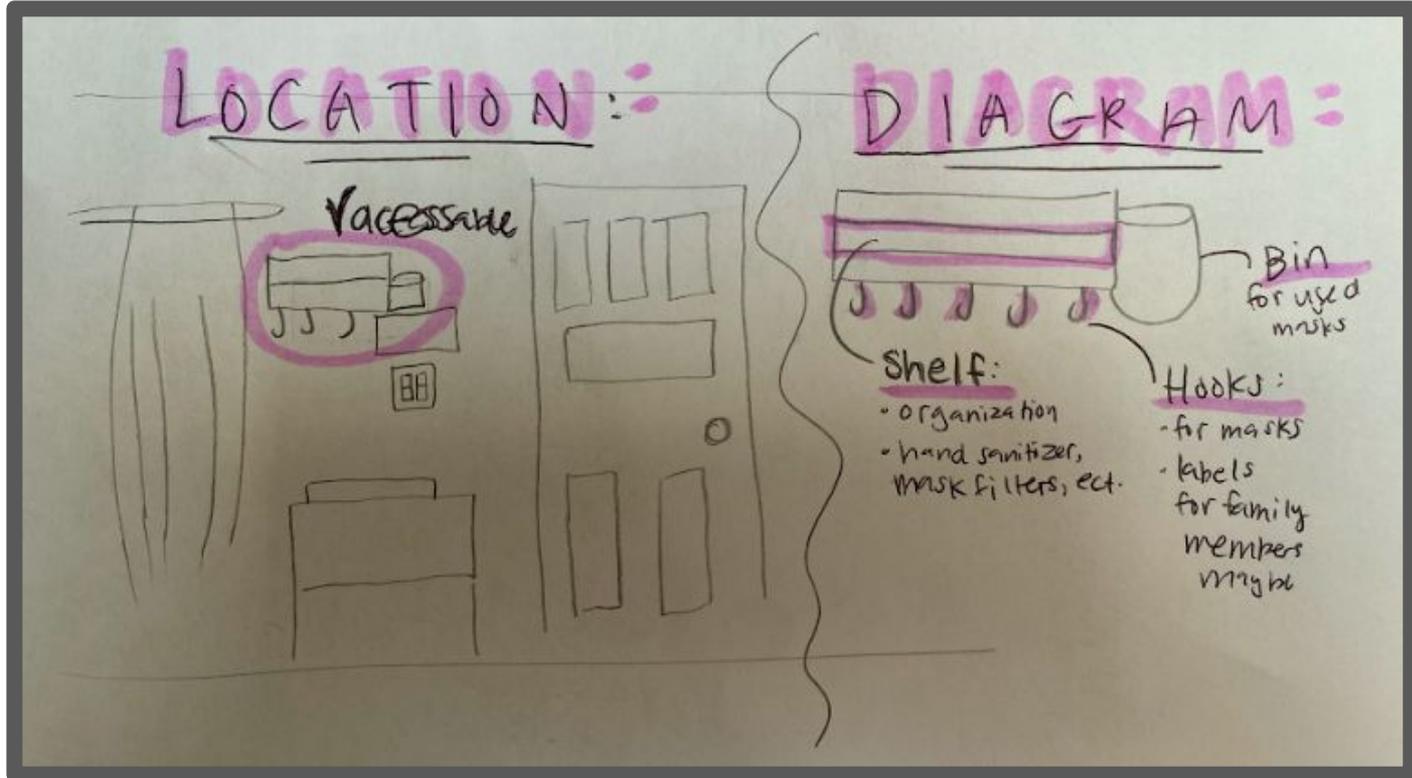
Name → Mask Organizer

Knowns →

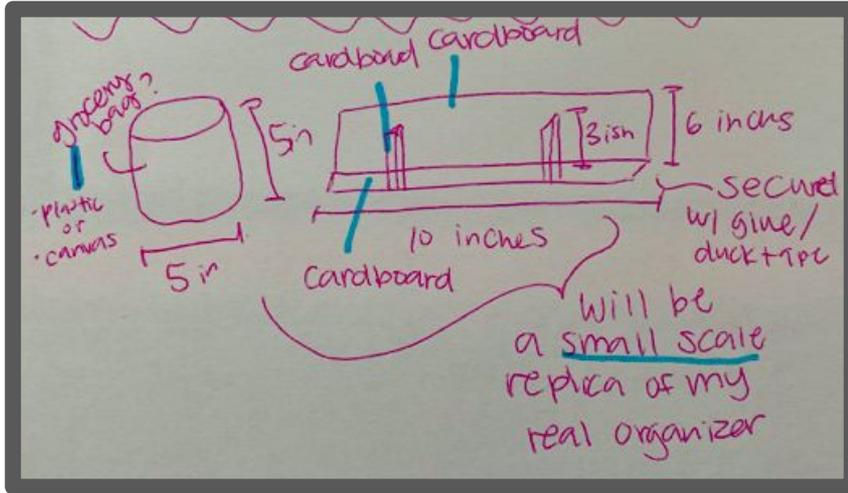
- must be durable / <sup>Sturdy</sup> sturdy
- must hold at least 12 masks
- must have a disposable bin

Unknowns → material? Color?  
Location? Size?

# Key Features Diagram and Location:



# Prototype Design Diagram:



Cheap, simple, and quick

## **Shelves and dividers:**

- Cardboard from boxes around the house  
Attached with: ducttape, or glue

## **Bin:**

- Grocery bag. Will try both paper or plastic to see which works best  
Attached with: staples, or tape

This mini replica will help me realize what will work best/not work before I begin to create my real final product.

Build, Test, Evaluate  
Prototype

# Prototype Build:

## Approach:

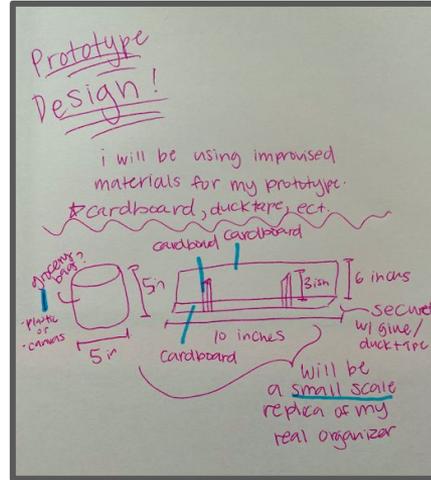
- I used cardboard strips to make the shelves a replica of what I designed in the diagram to the right
- I used thin wire I had around my house as hooks. I had to double wrap to make it sturdy enough
- All held together with tape (many layers)

## Something I liked:

- I like the 3 hook aesthetic staggered with the 3 compartments

## Something I will not do again:

- The wires are too flimsy
- The bag is too small and messy



# Prototype Test:

## *Hook test 1 - Carbine Hook*

*Test objectives:*

- Aesthetics
- Use of improvised materials
- Durability

*Test method:* User testing, was attached directly to prototype and then then tested with masks

*Test criteria for success:*

- Can hold up to 3 masks
- Is a creative use of improvised materials
- Is easy to use and looks nice

*Evidence:* Photos to right

*Observation:* Very sturdy and looks nice but is a hassle to have to open and close the hook everytime you need a mask.



# Prototype Test:

## *Hook test 2 - Hanger Hook*

### *Test objectives:*

- Aesthetics
- Use of improvised materials
- Durability

### *Test method:*

User testing, was attached directly to prototype and then then tested with masks

### *Test criteria for success:*

- Can hold up to 3 masks
- Is a creative use of improvised materials
- Is easy to use and looks nice

*Evidence:* Photos to right

*Observation:* Not as curved so can't hold as much but looks cleaner. Creative use of household materials



# Prototype Test:

## *Hook test 3 - Wire Hook*

*Test objectives:*

- Aesthetics
- Use of improvised materials
- Durability

*Test method:*

User testing, was attached directly to prototype and then tested with masks

*Test criteria for success:*

- Can hold up to 3 masks
- Is a creative use of improvised materials
- Is easy to use and looks nice

*Evidence:* Photos to right

***Observation:* Not very sturdy. The wires can be bent to any shape, but the mask weight bends the curve downwards and the masks fall.**



# Phase 1 Prototype Evaluation

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

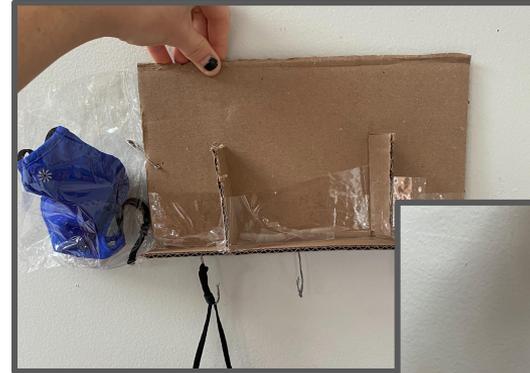
- Design of shelves
- The three hook design
- The hanger hook is my favorite use of improvised materials

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

- Bag
- Dimensions should be altered to have more shelf space
- The wire hooks I first used

## *Improvements for the next iteration*

- First 2 above



Rough Draft

# Rough Draft Design

Elle  
Davis

## Rough Draft Design

Goals: Full size, Use of improvised material, Shows all elements how they will be in final.

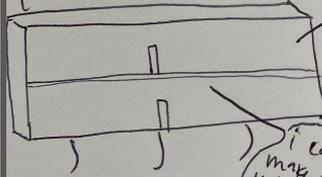
### Changes:

- \* materials
  - ↳ plastic shelves vs. wood
- \* bin → plastic
- \* hooks

### Keeping:

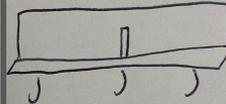
- \* size
- \* place
- \* key use

(size will be differed depending on what i find)



if i find some sort of plastic bin, i could use this to modify to make compartments.

i can make shelves w/ other plastic parts



or, if no bins @ dollar tree, i can use wood.



plastic bin @ dollar tree.

secured by nail?

# Rough Draft Build

## ***Approach:***

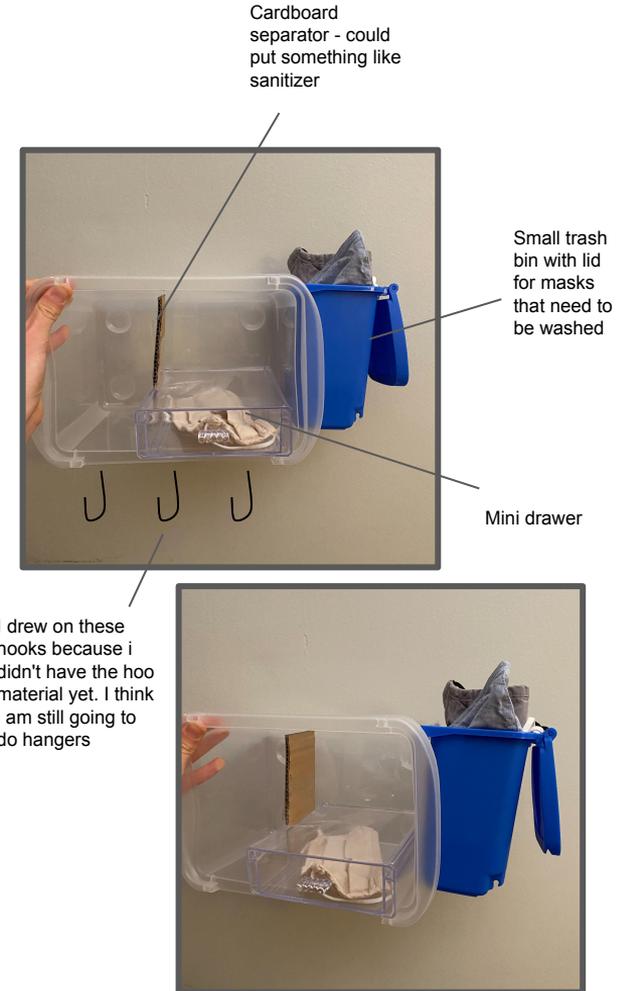
I decided to go find items like plastic bins and storage drawers to take apart and put together to make this storage shelf. There are no hooks yet for this draft, I still need to get the hangers, but there will be 3 hooks in my final.

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

- I wasn't expecting to add in the drawer but I like it for more storage space. Some of the masks require little rubber things to adjust the ear bands or wire to put on the nose part to tighten the mask, so i could put these in here.

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

- Not use tape to attach everything obviously. I think I'll need something sturdy like nails or hot glue for some parts. Also, not any cardboard will be on my final.

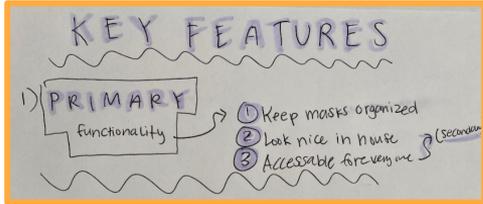


**Final Draft**

# Final Product Photos!



# Final Evaluation



Overall, I am very satisfied with my product. I think it exceeded my expectations design-wise, and proved to be sturdy, aesthetically pleasing, accessible, and useful. I added organization compartments in my final and I liked the way they look with the labels and jars I glued on.

Although I ran into some problems along the way, I was able to work around and learn from them. For example, I accidentally nailed in one side piece of wood onto my shelf vertically, other than horizontally, like the other side. However, I made it work still by adding another piece and resting this compartment for sanitizer that fit perfectly. I ended up liking it better this way.

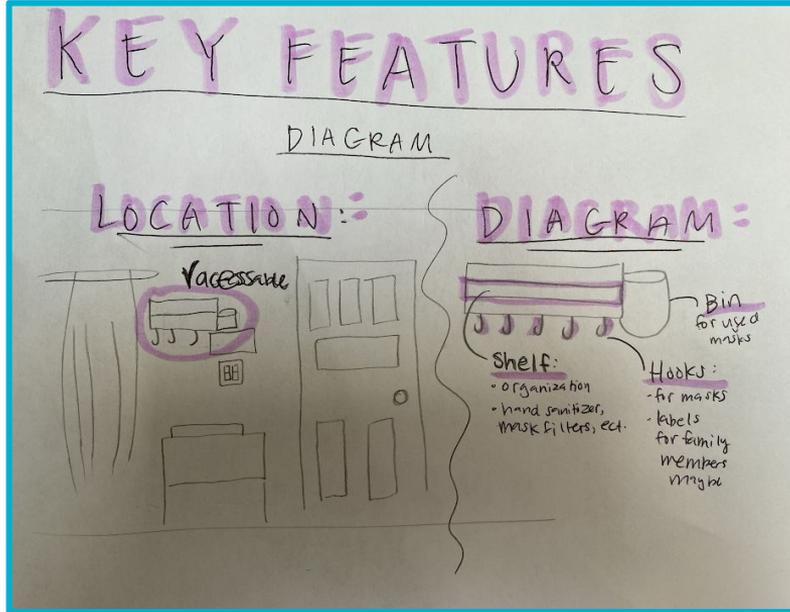
# Mask Organizer: Final Documentation

**Elle Davis**

# Final Product Photos!



# Explained: The Design



This was my first diagram. Some things have changed since then in my final, but the basic elements and key functions/features/knowns stayed the same.

Name → Mask Organizer

Knowns → • must be durable / <sup>Sturdy</sup> sturdy  
• must hold at least 12 masks  
• must have a disposable bin

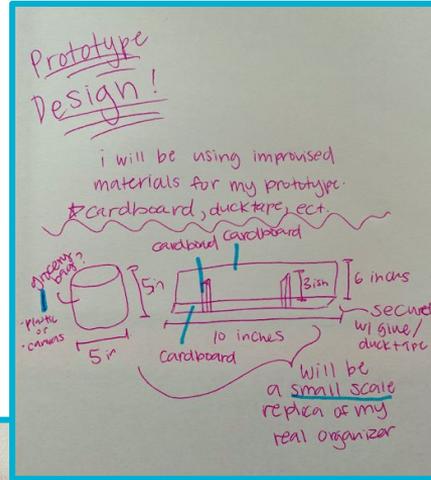
Unknowns → material? Color?  
Location? Size?

# Explained: Prototype Build

## Approach:

- I used cardboard strips to make the shelves a replica of what I designed in the diagram to the right
- I used thin wire I had around my house as hooks. I had to double wrap to make it sturdy enough
- All held together with tape (many layers)

From this prototype, I learned a lot about how I will need to go about my final. I learned that I will need a stiffer material, like wood, and that I need a sturdier bin. I liked my design but I knew I wanted to add more elements (like a drawer) in my final. Overall I was proud of my prototype and it was helpful for planning my next steps.



# Explained: Testing - Hooks

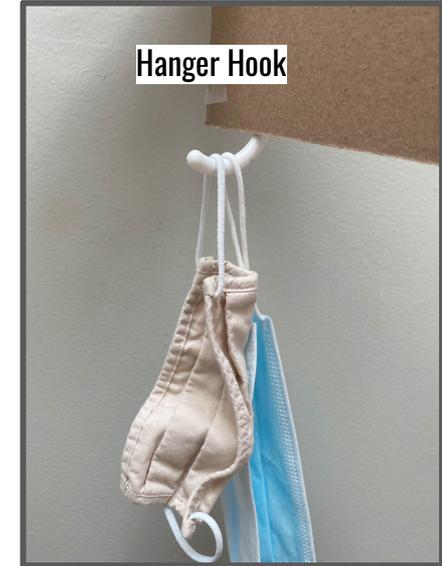
I was able to use the “User Testing” method to choose a final hook design. I tested each different material hook using the criteria listed below. The right are photos of my tested hooks!

## *Test method:*

User testing, was attached directly to prototype and then then tested with masks

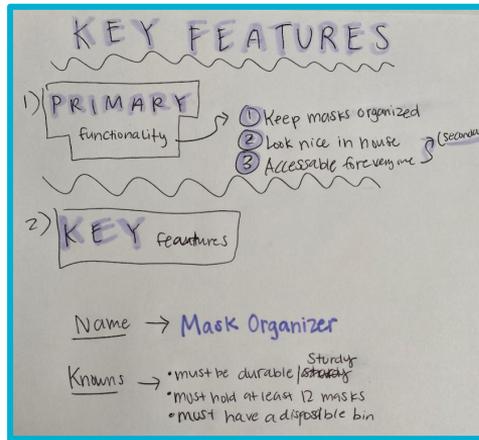
## *Test criteria for success:*

- Can hold up to 3 masks
- Is a creative use of improvised materials
- Is easy to use and looks nice



# Final Evaluation

Overall, I am very satisfied with my product. I think it exceeded my expectations design-wise, and proved to be sturdy, aesthetically pleasing, accessible, and useful.



Although I ran into some problems along the way, I was able to work around and learn from them. For example, I accidentally nailed in one side piece of wood onto my shelf vertically, other than horizontally, like the other side. However, I made it work still by adding another piece and resting this compartment for sanitizer that fit perfectly. I ended up liking it better this way.