# Prototype Delivery Plan

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### In the prototyping phase of this project, we have decided to prototype two functions of the end product, a.k.a Project OCPD Smart Mirror:

* Hardware Side-Mirror Aesthetics (how are we going to compartmentalize all the electronics behind the mirror so it looks good from the front and won’t create hazardous situations)
* Software Side-Google Assistant (how to use the open-source Google Assistant Library with a raspberry pi)

### We plan to have the following components in our prototype design:

* [7” x 10” Replacement Mirror](https://www.walmart.com/ip/Cipa-Cut-and-Stick-Replacement-Mirror-7-x-10/16680061?wmlspartner=wlpa&selectedSellerId=0&adid=22222222227009605870&wl0=&wl1=g&wl2=c&wl3=40839528272&wl4=pla-78652934432&wl5=9011069&wl6=&wl7=&wl8=&wl9=pla&wl10=8175035&wl11=online&wl12=16680061&wl13=&veh=sem&gclid=CjwKCAiAqt7jBRAcEiwAof2uK1afhp1LN-fVI7BCOJ_v37ZEDvuEX4j7V5A78tASPuOGjTCXzbqcDRoCwf4QAvD_BwE)
* [100 x 100 x 1 mm Model Balsa Wood](https://www.walmart.com/ip/20-Sheets-Colse-to-4-100x100x1mm-Model-Balsa-Wood/357170150)
* [Gorilla Wood Glue, 8 oz.](https://www.walmart.com/ip/Gorilla-Wood-Glue-8-oz/15085314)
* [Google Voice Kit AIY](https://www.target.com/p/-/A-53416295)

It should be noted that the materials used will strictly be used for prototyping the functions that we believe will give us the most bugs and caveats. The materials may or may not be reused depending on what lessons are learned from the prototyping phase. In this system, the materials needed are as listed above and they will be used to test the functions as also described above. For this to function, the **mirror** will be the main part of the system the user interacts with and will be integrated within the wooden frame we build for it. The wooden frame will be prototyped on a smaller scale using **balsa wood and wood glue**. The mirror and frame will either serve as the compartment for the electronics or we will build a compartment for to be housed back there. The route we take will be determined by the results of the prototype. This prototyping should allow us to figure out a design that will have the best structural integrity and endurance while also being aesthetically pleasing and functional for the user. It will also serve as a great opportunity to mess with any design changes before we commit to a singular design to finalize. These are the goals with highest priority for the hardware side of the project. Now the main goal for the software side is to have integrated a form of **Google Assistant** for the user which should open up a variety of features that could prove useful for someone with OCPD. Since none of us knows Python source code, we decided the best way to learn is to use a pre-structured Google Assistant voice-control kit and experiment around with the SDK library. We hope to take from this experience some of the coding knowledge that would prove useful when attempting to integrate an artificial-intelligence-powered virtual assistant into our larger scale internet of things project.