Team name: Team SmartMirror

Team members: Michael Dykema, Josue Nunez

**Introduction**

We will be designing and building what is commonly known as a Magic or Smart Mirror. Essentially, it is a monitor behind a mirror, powered by a Raspberry Pi, that displays information. Commonly, this information includes weather, calendar events, stock market information, daily motivational messages, etc. Our projects will include most of these standard widgets (information displays).

In addition to the standard widgets, we will also include at least one custom one related to disc golf news. We will gather new articles from different sources such as UltiWorld Disc Golf, Reddit, and the PDGA. We also hope to be able to display live scoring from disc golf tournaments. There may also be notifications sent out/displayed about updates from manufacturers and retailers about disc releases and stock updates.

**Anticipated Technologies**

Raspberry Pi

Monitor

MagicMirror Platform

Python (potentially for web scraping)

RESTful APIs from different web services

Modules: mic, camera, leds indicator lights (Optional)

**Method/Approach**

Our plan of attack for developing this project will be to read and look at videos first to get informed about the generality of a raspberry pi and what best program and softwares to use to make a magic mirror. We will have weekly meetings via discord to discuss what we have learned. Eventually we will get to discussing the specifics of the dimensions for our mirror and frame once we have all the parts needed to make it. Once it's built we will get to programming our individual programs via our raspberry pi. We both will have a raspberry to code from home and will eventually merge our codes together to make a complete magic mirror.

**Estimated Timeline**

### Step 1: Collect Materials: glass, frame, raspberry pi and modules : J and M **(2 weeks)**

### Step 2: Make the Frame according to dimensions of material/ paint : J and M **(1 week)**

Step 3: Mount the Internals: J and M (1 week)

Step 4: Program the Raspberry Pi and Install Raspbian Jessie: J **(1 week)**

Step 5: Add Modules: J and M **(1 week)**

Step 6: Features: F1: Weather, Calendar, and AI connection: J **(2 weeks)**

F2: Disc Golf Notifications Widget: M (**2 weeks)**

**Anticipated Problems**

It may be difficult to access the APIs for the different sources of Disc Golf news and Information. May end up having to do a bit of web scraping. Specifically, it may be impossible to get live scoring information for disc golf tournaments.

It'll be hard to find a cost effective way to build the mirror as well as hard to find a 2 way mirror for the correct dimensions.

Cable connections could get tricky if not organized properly