FourFace meeting 12/14/19

To Do:

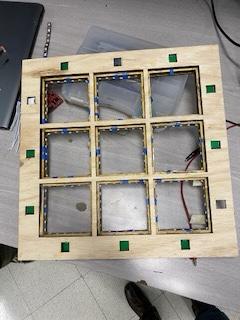
* Cardboard Scale Model
* Create budget
* 3D model
* Actual prototype (one face)
* PCB Design

Team members:

* Michelle Acoba
* Alyssa Gu
* Anthony Pham
* Christian Gonzalez
* Noah Tarr
* Patrick Mackle
* Sophie Bolotin
* Vanessa Liera
* Victoria Liera

Groups: SIGN UP HERE

* Materials Group (includes budgeting and supplies)(before quarter starts):
  + Vanessa
  + Victoria
  + Sophie
* PCB Design Group:
  + Michelle
* Design Modeling Group (Frame/TouchPads/LEDs):
* Laser Cutter Group
  + Michelle
* Assembly/Solder: Everyone
* Programming (much later):



from previous emerge project: example of what face could look like

**Task 2:** **How?** Decide what will be the essential and minimal components to convey the “what”. Then, identify the components/sub systems to implement the “what” start identifying challenges (either because of skill level or because of technical

challenges).

-Need:

* 4 frames
* PCB
* 4 microcontrollers
* LEDs
* Acrylic laser cut
* Fusion CAD Model

Proposed materials:

* Acrylic
* Wires
* Microcontollers
* LEDs

**Task 3:** **When/Who?**

**Tasks Over Break** SIGN UP HERE

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tasks | Due Date | Team member(s) | Status / (date) | Notes |
| Ask Veronica |  | Vanessa | 12/17: attached is a google drive link from their project that we can use as a guide & a link for more info on cap touch sensors | <https://drive.google.com/open?id=0ByCZm77vVHT7Q2Z0dXZXN2xrN3M>  <https://www.instructables.com/id/How-To-Use-Touch-Sensors-With-Arduino/> |
| Ask Sean about cap sense technology |  | Michelle | 12/19: will start research | Copper tape connected to MSP430 (external capacitor: acrylic and copper tape)  Look at guides from TI for touch sense - microcontroller per face//multiple small PCB that take care of each tile but there would be one main  Another method: resistive touch sensing  Waiting on: reference material a group used last year |
| Budget | Second week | Vanessa  Sophie  Victoria | 12/27: added some piping prices for the stand & accounted for amount of acrylic that will be used | Can use Amazon (generic parts), Digikey or Mouser (electronic parts) |
| Cardboard Scale Model |  | Noah  Michelle |  |  |
| PCB Design | Week 2 | Christian  Michelle  Noah |  | What are you trying to make? What is the PCB going to? |
| CAD/Fusion Model for frame | By end of winter break | Patrick  Anthony  sophie |  | CAD Model so we can order materials before break is over |
| Touch Pad Design | Before third week of break | Alyssa |  | DXF Design so we can order materials before break is over |
| Laser cut and design graphics for 36 squares |  |  |  |  |
| Create sensors on 36 squares |  | everyone |  |  |
| Figure out details of materials - Talk to Design People |  |  |  | ¼ Plywood provided in 2’x2’ squares  ¼ clear acrylic provided in 8”squares |
| Finalize & Order Materials list | Third week of break | Vanessa  Victoria  Sophie |  | First order should be in by the first week. |

**First Week of Winter Quarter** SIGN UP HERE

|  |  |  |  |
| --- | --- | --- | --- |
| Tasks | Due Date | Team Member(s) | Status / (date) |
| PCB Design |  |  |  |
| CAD/ fusion model for frame & touch pad (modifications) |  | Patrick |  |

* **Need to have a prototype of one face by second week**

**Second Week of Winter Quarter** SIGN UP HERE

|  |  |  |  |
| --- | --- | --- | --- |
| Tasks | Due Date | Team Member(s) | Status / (date) |
| Assemble LEDs |  |  |  |
| Solder PCBs |  | Everyone |  |

**Third Week of Winter Quarter** SIGN UP HERE

|  |  |  |  |
| --- | --- | --- | --- |
| Tasks | Due Date | Team Member(s) | Status / (date) |
| Assemble 2 frames |  | Everyone |  |

**Fourth Week of Winter Quarter** SIGN UP HERE

|  |  |  |  |
| --- | --- | --- | --- |
| Tasks | Due Date | Team Member(s) | Status / (date) |
| Assemble 2 frames |  | Everyone |  |

**Fifth/Sixth Week of Winter Quarter** SIGN UP HERE

|  |  |  |  |
| --- | --- | --- | --- |
| Tasks | Due Date | Team Member(s) | Status / (date) |
| Start programming LEDs |  | Christian  Noah  Anthony  Sophie |  |

**Task 5:** Finally, perform a SWOT analysis i.e. Strength, Weakness, Opportunities and Threats