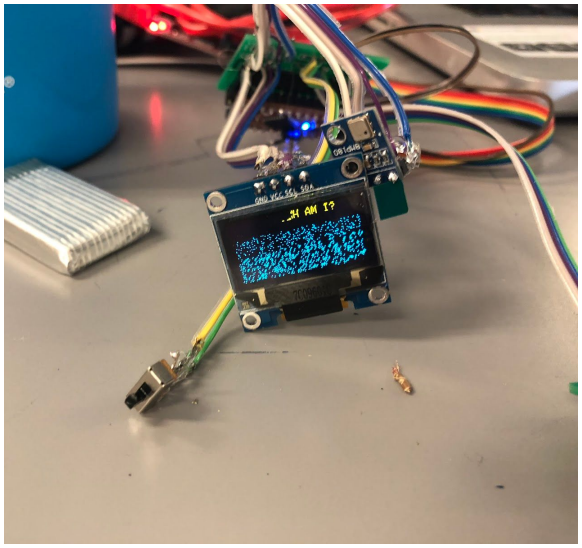
10 Reflection



Screen gaining consciousness and asking important questions: “Am I?”

Overall, there were definitely hurdles to cross throughout this whole process. Luckily, for the most part they were relatively easy to overcome once work was put into them. One aspect that is still tricky are the multiple timers and height calculation number on the height page. When code was implemented that would optimize user interface, showing only one time at a time, the Arduino was incapable of effectively performing and displaying these values. It was difficult to capture the instances the button was clicked, and this prohibited standard functionality of timing for height.

As for hardware, on the 3D print, the first draft of the top cover piece was flawed and most notably did not have the button holes spaced out appropriately. Therefore, I had to lower buttons to provide more room for components on the inside and put them closer together to fit the buttons on the PCB. There was a lot of trouble with the screen not functioning properly (likely soldering imperfections). On the PCB board, the metal circle for one component connecting to next became detached and a seperate connecting wire had to be attached. The board and everything was taken many steps back to slowly walk forward through this to make sure it all would work properly.

If doing this project again, I would absolutely make the case slightly bigger and add cubbies inside and other compartments to help hold components in place. Furthermore, initially adding header pins from the PCB board to other components would be efficient, rather than forgetting that step and directly soldering the components to wires to the board. Several times the circuit was not completely functional so software development had to be placed on hold. Therefore, keeping an extra set of components placed on a breadboard would be very useful so that software could be fixed and edited even if the physical components on the actual board were not fully functional at that moment.