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https://github.com/CatWeng/CART360
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ARTIFACT "THIS = THEN = THAT"

Insights & Future Development

Overall, I am proud of what I have achieved with my artifact. My concept went through some pretty radical changes throughout the milestones but in the end I created something I personally am decently satisfied with. Or course there is plenty of room for improvement, not nearly as many elements as I initially wanted and a lot to be desired in how I reached this stage but what's done is done. For what feels to be a fairly simple set of interactions, the whole project turned out to be a lot more complex than expected. One of the biggest difficulties I run into with these sorts on unconventionally formed projects is making the circuit. What is the best way to put this together to minimize the risk of loose connections and short circuits? The final product is definitely function over form. It is a bit of a nightmare to look at but the final product is as reliable as I can get it. In the end I removed the last proximity sensor and PIR sensor because I felt they didn't offer anything to the final creation. The sensors on the head of the creature serve as "eyes" both in look and function. Although it would be nice to have a wider range of detection, I felt that having sensor bits randomly sticking out in odd places takes away from the essence of a living being. I think it would be a nice future addition if I could have more sensors, real or fake, to decorate the creature with and integrate the awkward shape in a more cohesive manner. The piezo buzzer was removed as well because although it was alright in theory, the minimal level of sound it gave the creature did not make enough of an impact. Although it could work in a controlled, quiet environment, the creature is meant to act as a guard against others. If the buzzer cannot be heard over a crowd, there is not much point in having it. As a future improvement I would like to put small speakers and a variety of sounds available for the creature to "make". Visually, the creature ended up with a very dark but whimsical feel using what materials I had available. Kind of like something out of a Tim Burton movie, or as my friend noted, like the Undertale games with a connection to the recurring heart motif. The inspiration as I was making it, however, was the idea of an imaginary friend, or the monster under your bed. Something a bit vague to allow for creativity and appealing to a wide audience but still "scary" enough to fit its role as a guard. Another idea for future development and/or the creation

of other creatures is the ability to make it more customizable. As it is, it's a fur "skin" over the electronic insides. Having the zipper extend the whole length would offer easy removal and replacement and the ability to change its look at will. Additionally, instead of having the parts (limbs, horns, wings, teeth, etc.) attach directly to each skin, it would be fun if they were magnetized or clipped in so one could mix and match parts on their creature and really get creative. An imaginary friend should really be limited only by the imagination. As a final addition, animatronics would really bring the creature to life.

Research process

With the mishap that was my original proposal, a lot of research had to be thrown out and restarted. The build itself was largely trial and error, save for research on the capabilities of the sensors involved. I had to figure out whether the sensors were compatible when used together, and thankfully they had a similar range of activation. I also had to check that the materials used didn't accidentally conduct anything. For example, it isn't pictured but the creature has a flexible wire core and that meant I had to wrap it so it didn't accidentally touch any of the surface thread. Wires especially I had to make sure they had a strong connection to each other but also covered enough not to cross anywhere. As for the interactive aspect, I wanted to use a set of signals with a universal meaning. Especially since I intended for the physical appearance of the creature to have a form appealing to younger audiences. So I used a colour scale based off of traffic lights for a simple, clear and effective message. I also wanted my project to maintain the physical appeal initially proposed. Too many interactive electronic works are simply unattractive due to the awkward shapes that technological components often take. So my final artifact is a balance between the necessity of having those parts, and finding ways to transform them so they don't look like a tangled mound of wires.

Photos and videos available on Github in the appropriate folder.