Peter Mohr

Engineering+ Service Learning

Stallard, Caskel

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Reflection #1 – Pre-Project

Activity Summary

At the beginning of Senior Design, myself and a group of students were each tasked with coming up with a new product idea, and one of those ideas was a thermal sensor mounted to a door frame that quickly, and without any contact, took your temperature. We imagined this might be helpful at schools or healthcare facilities. However, another group member knew just where it might be helpful. She suggested Emberhope Youthville. Emberhope Youthville specializes in helping at risk adolescents and administers foster care services. She went on to say the persons they serve may prefer a completely contactless and non-invasive way to check for a fever at their facilities. Our group thought this was a wonderful idea. So that group member met with her contact at Emberhope Youthville, and they became are project sponsor.

Limitations

The project we have endeavored on will require a lot from this prospective device. The device will need to be fast. It will need to measure temperatures from over a foot to two feet away. A person will need to be able to use the device without any prior instruction. Moreover, it will require our group to learn several new hardware devices and for myself, new coding libraries.

Goals

Our goal is to deliver a product that meets the needs of Emberhope. To overcome our knowledge gaps, we will use the resources provided by WSU and the collective knowledge obtained from our respective majors. But mainly, learning these new skills will require dedicated time spent in online research about the hardware and coding that will be necessary.

Perspective-Taking

When speaking to other people they often agree that contactless temperature taking is their preferred method. For our sponsor, many of those getting their temperature taken have experienced past emotional or physical trauma and would greatly prefer physical distance for this process.

Teamwork

Working in a team has been a wonderful experience. In my group of student engineers, I am the only computer science major. The other students are both electrical and computer engineers. There different knowledge bases have been invaluable and has allowed us to progress smoothly through our project planning.

Measures of Success

Our group has met with Emberhope Youthville staff and were successful at getting specific product requirements. We feel our group will create something that will positively impact our sponsor, but we would like to employ an additional strategy to measure success. As such, we intend to provide optional surveys to the staff and clients of our sponsor to get their direct feedback concerning our product.