

Sophie M

Learning Module #2: Arduino Buzzer, Photoresistor, and Ultrasonic Sensor

Write Up:

Sophie worked on this project to figure out the different sensors and how they could work with a buzzer. Ultimately, she wanted to create an instrument that played different notes depending on the distance between an object and the sensor. With this, she learned more about photoresistors, ultrasonic sensors, and the PIR sensors. With the buzzer, she was able to find out what tones created a specific note and how she could use this in her coding. This specifically was used when having the buzzer make a noise depending on the darkness of a room as well as playing a certain note depending on how close an object was. There were a lot of complications with wiring, which Sophie found out to not be one of her strong suits. However, with more practice, she made less errors and was able to figure out her mistakes more quickly. Also, with the code, there were some errors made, but mostly syntax ones that were hard to find (such as a missing semicolon here and there). For others who would be interested in this project, Sophie would recommend taking more time on figuring out how the sensors work before trying to put the project together. It is important to know the specifics so this is a more calm transition to other projects that may use the same sensors. She would also recommend not giving up when things seem impossible and taking a step back instead. Overall, this project was very informational and taught Sophie a lot. It was very fulfilling to hear the buzzer make the correct noise and work properly in the end.

Useful Links:

Tinkercad to test circuit- <https://www.tinkercad.com/learn/circuits>