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CART360 – FALL 2018

~Assignment “THIS”~

Github Repository for more details
https://github.com/nmitrovic09/cart360/tree/master/Assignments/this

Concept/Idea

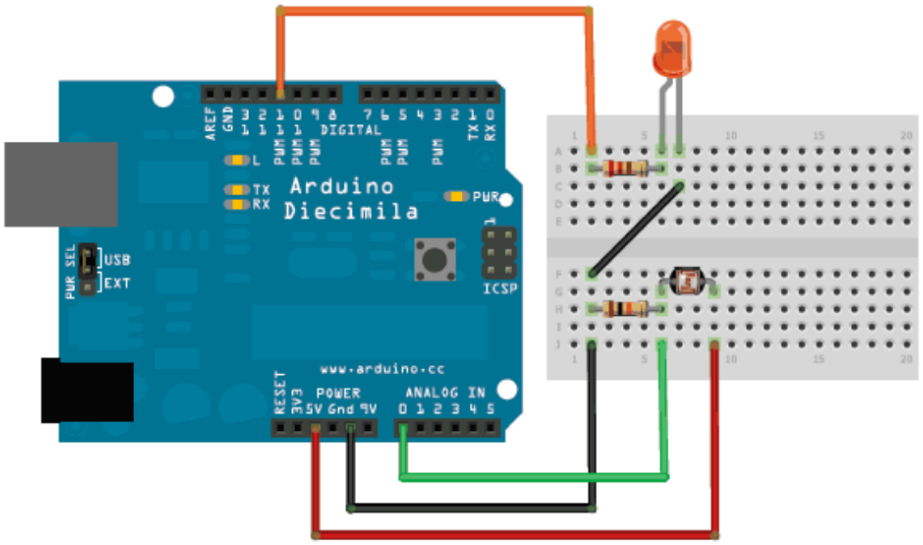
At this time, we tend to direct our attention to how could we find a solution to save the environment. We are in a certain stage where people don’t necessarily have power to save the environment since we have arrived to a critical stage. But, could we just find the ideal environment that is dangerous for our bodies over time?

Inspired by different fields such as letting us shift our authority to a device, meaning is generated by external data processing, and we expect algorithms to provide us with an answer, my “thing”’s main purpose is to process data from the environment to get an average of the air quality which, afterwards, guides the user to move towards a stable environment. To guide to user to a new environment, my “thing” will pulse on the right or left side to identify the user to move in one of the directions, and a possibility, that both sides pulse which allows the user to continue his actions because the air quality is not dangerous in that space or there is no change in the sensor data.

The design of my “thing” is similar to a scarf where it becomes an accessory for the user. He will wear that thing which will make vibrations on both shoulders. It will allow the user to shift his attention to the algorithm that will allow him an ability to find his own way in the environment. These pulsations are generated to give a sense in which directions the user should go to. They are generated with a random generator where it gives a certain sense of play to the person to trust his surroundings and adapt to it over time.

Schematics

ON/OFF with photocell



Sensor connections to Arduino

IIC Connection Diagram

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You must pay attention to the wiring order, VCC to Power Supply, GND to Ground.
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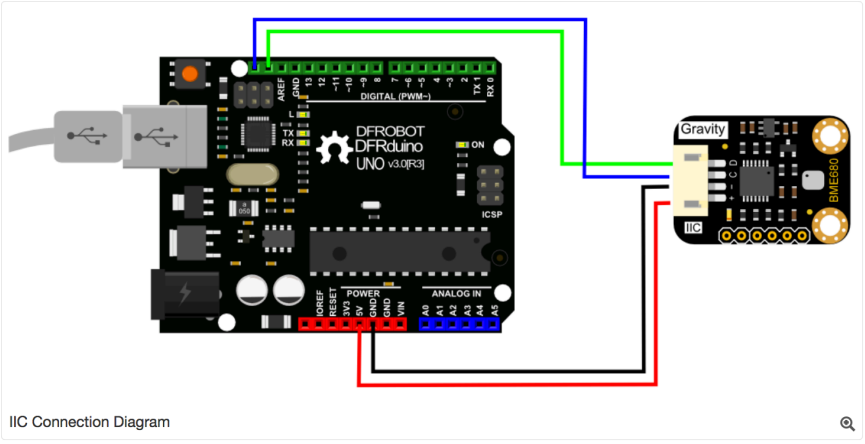

IIC Connection Diagram

SPI Connection Diagram

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You must pay attention to the wiring order, VCC to Power Supply, GND to Ground.
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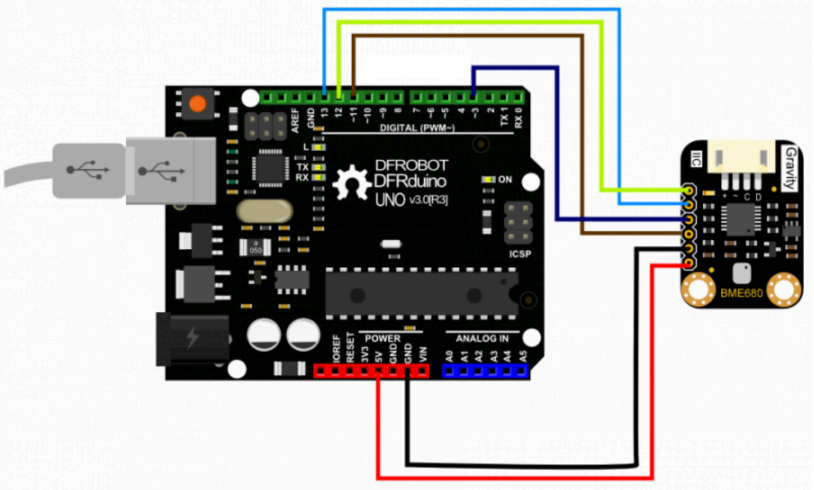

SPI Connection Diagram