

Smoke detector to Sensor tag.

The vision, in the beginning, was to incorporate a real smoke detector and modify it to connect to our Raspberry Pi or TI CC3220SF boards. The smoke detector was going to send alerts to mobile devices based on its detection of a fire. However, the smoke detector that was apart of the project did not send an analog or digital signal that could be read from the IT CC3220SF platform. The smoke detector required additional components that would increase the overall cost and complexity of the project. The project was quickly becoming much more complex and above the groups' knowledge. All tutorials found online required many more components that simply could not be required. The goal was to use parts that Professor Liu, had in stock. Upon visiting Professor Liu in his office hours he made a suggestion and provided the CC28505 SensorTag.

Sequentially, the group chose the route of using a Sensor Tag device. The Sensor Tag was built with multiple functions; for example, humidity, acceleration, and temperature. The Sensor Tag is also a TI brand that made conversion easier for use with the IT CC3220SF board. The CC28505 board was able to send and receive information from IBM Watson. Once the sensor was found, the project began to quickly take form. The receiving and interpreting of data became a lot easier. There were also tutorials online with the Sensor Tag that helped us connect it to IBM Watson, unlike the smoke detector where the very general instructions left us confused.