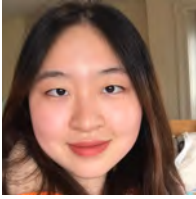


Team 14 - Smart Home IoT-Air Quality Detection for Clean Air



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The Smart Home IoT-Air Quality Detection for Clean Air is an Internet of Things based project which aims to provide air quality analysis inside the home. The IoT device will consist of a device with sensors to evaluate the air quality in a room. The data will be transmitted wirelessly to Amazon Web Services (AWS) and visualized on a mobile application. The device will connect to the AWS IoT Core and send data obtained from sensors via MQTT protocol. The data, which is then received on an MQTT broker, will be forwarded to AWS Kinesis as throughput to be stored in buckets on Simple Storage Service (S3). The data will then be retrieved from the AWS S3 bucket through AWS API Gateway to be visualized on the mobile application. The air quality will be determined by utilizing the Air Quality Index (AQI), ranging from 1 to 300. This project's hardware component will consist of a commercially available IoT board, the Arduino MKR1000, along with various Gas, Dust, Temperature & Humidity sensors to acquire the necessary data to calculate the AQI.