IoT Bootcamp

SMART HOME

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SDA+Conding DoJo

SMART HOME SYSTEM PROPOSAL

In this project, we propose developing a home by making it more convenient. We aim to apply IoT technology inside homes. We setup the appliances and devices where can be automatically controlled remotely from anywhere with an internet commotion. This connection allows users to control interconnected devices' function through internet.
We propose five systems for this project:

1. Smart doorbell
2. Smart garage
3. Smart water management system
4. Smart dust detector
5. Smart plug socket

Smart Doorbell (Faris Aljohani)
It mainly concerned about security that combines the function of smart phone and home network system. It allows remote door controlling to open for visitors.
Hardware: camera, smartphone

Smart Garage (Khawlah Aldawish)
Open the garage's door once the owner arrives by tracking his location. It also provides an AC controlling.
Hardware: smart android phone , Raspberry pi 4, servo motor.

Smart Water Management system (Renad Alfurayhi)
The system provide a real-time indication of water flowing. It provides bill estimation. The system also track the water tank to trigger if there is any leakage or overflow.
Hardware: water flow sensor, ultrasonic sensor, relay, ESP8266 mc.

Smart Dust Detector (Anjad Allots)
Dust storms are common weather condition in Riyadh,KSA. Developing such system that can act at the right time is crucial save our health.
*Hardware:*MQ2 sensor, ESP8266,Relay.

Smart Plug Socket (Khawlah Aldawish)
It can transform any device into a smart device that you can control form anywhere. It allows integrating any plug-in appliance to switch on/

off or act as a safety net if connect with humidity sensor. It keeps an eye on energy usage to save money.
Hardware: ESP8266,ACS712 sensor 30A Module, Relay, DH11