IOT Project Proposal

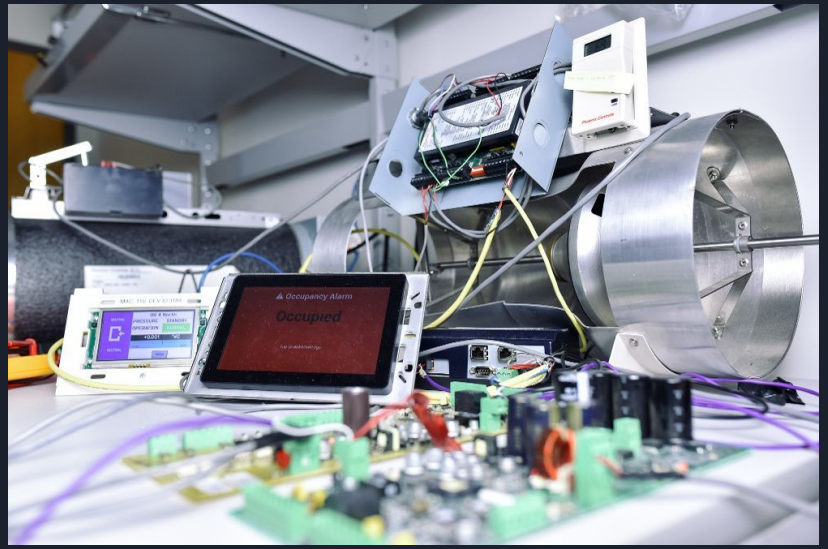
Project guidelines

- Build your own IOT Device
- Should use the pi / arduino / various sensors
- Leverage what you learned from the assignments (python, mqtt, influxdb, flask)
- Your device should do something useful, Something that makes life easier/better

- Your project can be something that already exists or has been done before but you need to put your own twist on it, don't just follow some tutorial online
- Your project needs to have a level of complexity to it. We are expecting multiple weeks worth of work

- Project 30%
- Final Project Presentation 10%

Example projects



- Security system
- Dog feeder
- Package lock box
- Dog tracker
- Sleep monitor
- Smart coffee maker
- Health monitor
- Smart grow system
- Spotify jukebox
- Car dashboard
- Nerf gun that shoots you when you die in fortnite

Hardware we have

- Laser break sensor
- Gps
- Ir grid
- Moisture sensor
- Short range radio
- Solenoid valve
- Finger print
- Dc stepper motor
- Ir distance sensor
- Magnetic door sensor
- Relays
- Cell phone
- Zwave plug
- Scale
- Screens
- Door actuator
- Buzzer
- Servo
- Aws button
- Sonar
- Tilt sensor
- Temp humid
- Heart beat
- Sense hat
- Motion detector
- Alexa
- Drone
- Light spectrum sensors
- Bluetooth sniffer

Project Proposal guide

Write a short description (half to a full page) of your project and your plan. Provide details on what devices you will be using and what each device will do. Describe how devices will be connected: physically, through a local WiFi connection, or through the internet. Talk about any software you plan to use. Feel free to provide a diagram if you feel that will help explain your project.

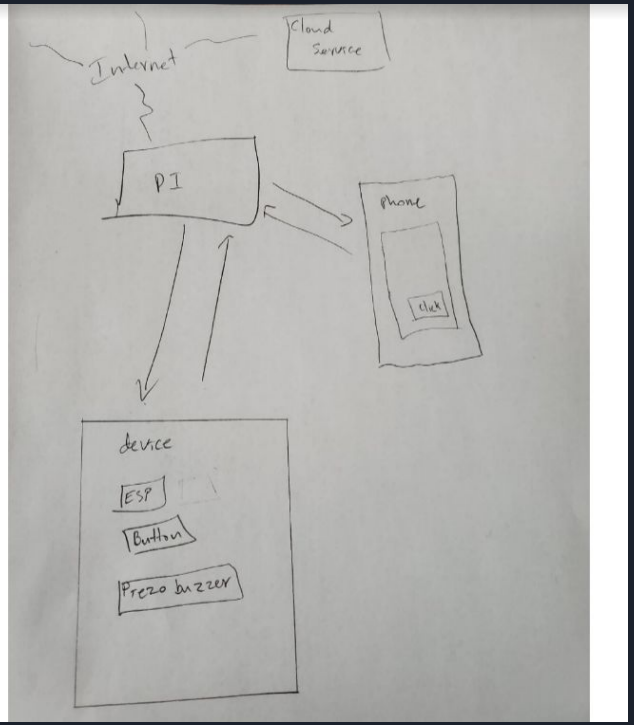
- Proposal and Proposal Presentation is 5% of your final grade
- Written Proposal due before next class, submit by email

Example proposal

Keys Tracker

For my final project, I want to build a device that could easily attach it to my key. What it does, is that on my phone app I would send a request to the server and the device will receive the message and it will make a noise. And when I click the button on the device it will send a request to the server and the phone will receive the message and it will vibrate. All the devices will be connected through a local WIFI. I think for me to complete this project, I would need:

- ESP controller
- 1 Button
- 1 Piezo buzzer or a speaker
- Raspberry PI
- Phone
- Arduino and NativeScript



- This project is a little too simple but the proposal explains the project idea well

Present your project proposal on 3/18

- Quick 5 minute presentation of your proposal