19/9/21

Ordering of items

Things done:

- New sensor which is the mmwave sensor on top of the L515 3d-camera
- Read up on the capabilities of the mmwave sensor (range, resolution, and response)
- Read up on different models of the mmwave sensors
- Read up on the library of the IWR6843AOPEVM (mmwave sdk and mmwave studio ide)
- Obtained the jetson nano (but no sd card and power supply)
- Distributed the responsiblities

Current state of project:

- Currently using L515 3d camera and the IWR6843AOPEVM mmwave sensor that provides up to 60m range of human detection
- Items are ordered and expected to arrive next week
- Jetson nano does not have sd card and power supply
- Ryan Tang is looking into servomotors and jetson nano
- Meilin is looking into the L515 3d camera
- I am looking into the IWR6843AOPEVM

Problems faced:

- As the mmwave alone is not enough due to no visual sensor to differentiate clustered objects, a 3d camera was recommended on top of the mmwave sensor
- FOV of 3d camera is smaller than that of the mmwave sensor, hence, implementation of servo is needed for our L515 camera to match the FOV of the mmwave, adding another complication to our system
- The IWR6843AOPEVM is a very new technology and even though the official documentation is very rich, there are not much third-party libraries or implementations that we can refer to

Work to be done:

- I will try to parse the serialised data from the mmwave sensor on a windows pc
- Meilin will try to parse the data from the L515 on a windows pc
- Meanwhile ryan will look into the controlling of the servo from the jetson nano