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Team Name: Team GoGetter

Date of Submission: September 19, 2021

Meeting Date & Time: September 19, 2021 at 2:00

Meeting Location: Library C-Space

Meeting Duration: 1 hour

| Team Members | X = Present | Notes |
| --- | --- | --- |
| Khanh Le | X |  |
| Phuong Nguyen | X |  |
| Abdullah Alhoulan | X via Zoom |  |
| Mutlaq Alotaibi | X |  |
| Marshall Aurell | X |  |

Progress:

The team shared their research for the weeks before. Most of the components ordered have arrived except for the Arduino power cord. Everyone knows the basic component of the sensor systems. Discussed about how to put it together next week in JBC 106

Individual contributions:

Khanh: I have set up a list of work that needs to be done at the moment to continue the project. Checked on everyone’s progress on their tasks. I point out a number of problems that the team needs to address in the future. Agreed upon the basic layout of the sensor system.

Abdullah: In the fifth week, we met to discuss the project and the new additions to it. I explained about sensor types and what we need. Also, the way it works in the project and its cost. We agreed on tasks for each person for the next time.

Mutlaq Alotaibi: On Sunday, Sep 19, 2021, at the library (C Space) location we discussed sensors by Abdullah, And the drawing for how we need to connect it and how much that will cost, and Khanh will order the sensors then we are plan to start on it next week if the materials are ready.

Marshall Aurell: We met and discussed the weight sensors Abdullah researched. Discussed where we will be placing the sensors and how we want to transmit the information over wifi. I’ve been researching functions for the Arduino for light sensors, pressure sensors, and OLEDs (how to assign pins, scale ranges of values obtained from the sensor, call on sensor we are using, delay function). I’ll do research on a library that can cover the sensor we have decided to use.

Phuong: want to transmit data through wifi using IoT service. The old sensor layout needs a lot of wiring. He is responsible for microcontroller and transmission through Wi-fi.

| Team Member | Assignment | Due Date | % Complete |
| --- | --- | --- | --- |
| Phuong | Find and research and draft reports of various strain gauges. | 9/18 | 100% |
| Abdullah, Khanh | Find and research and draft reports of various motion sensors before deciding what to use. | 9/18 | 100% |
| Marshall | Find and research Arduino microprocessors | 9/26 | 80% |
| Team | Draft the basic logic model of the system. |  | 100% |
| Team | Decide on the design of the sensor system (within a housing or separated) | 9/26 | 100% |
| Mutlaq | Power consumption / supply |  | After knowing the sensor design |
| Khanh | 3D printer for module/ CAD designs |  |  |
| Team | Put the sensor model together | 9/25 |  |
| Phuong, Marshall | Find the codes for Arduino sensors | 9/25 |  |

Cost:

| ID | Price | Manufacturer | Manufacturer Product Number | Link |
| --- | --- | --- | --- | --- |
| Load Cell | $11.19 | Degraw Design | 4 x Load cell 0-50KG  1 x HX711 24BIT Precision ADC Module on breakout board  10 x Breakaway header pins for HX711 connection | https://www.amazon.com/Degraw-Amplifier-Weight-Arduino-Bathroom/dp/B075Y5R7T7/ref=sr\_1\_8?dchild=1&keywords=load+cell+arduino+150k&qid=1631958394&sr=8-8 |
| Arduino Board with Wifi | $44.80 | Arduino | Code: ABX00021 / Barcode: 7630049200234 | https://store-usa.arduino.cc/products/arduino-uno-wifi-rev2 |
| Motion Sensor |  |  |  | JBC 106 |

Plan (future work):

| Assignment | Due Date |
| --- | --- |
| Power supply (AC-old phone charger/DC-lithium battery) |  |
| Arduino logic codes (how the data is being used) |  |
| Wireless integration between 2 systems (BT/Wi-fi) |  |
| Research the alert system (7 segment display or an alarm). |  |
| IoT for communication |  |

Issues:

Need to put the board together on Saturday/ waiting on the components

Include the schedule for the next meeting:

Meeting Date & Time: Saturday 9/25 2021

Meeting Location: JBC 106