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Team Name: Team GoGetter

Date of Submission: November 14, 2021

Meeting Date & Time: November 14, 2021, at 9:00 PM

Meeting Location: Zoom

Meeting Duration: 2 hours

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

Progress: We were able to test some of the components on 11/13. The IR sensor’s code needs to get recalibrated (it works sometimes, needs it to work at least 90% of the time). The strain gauge needs to be soldered and calibrated for testing. The 3D model is done, it needs to be printed. About power, the project’s power consumption is quite high, most 9V batteries won’t last very long. Mutlaq needs to start on a testing fixture/document.

Abdullah: We assembled for practical application in the laboratory. I was in charge of the sensor and it was tested. There are many more experiments in the future and we will also correct the errors that happened.

Mutlaq**:** We worked on our project and we built it and connected the weight sensors and Arduino after we uploaded the code on it. Then we calibrated but it didn’t work. We plan to fix the code again and do the test again.

Phuong: I will be responsible for testing and calibrating the strain gauge. Still working on it, I will update the progress on Tuesday.

Khanh: Currently done with modeling and will need to test on printing the enclosure. I will update all the documents about the project’s technicality.

Marshall: Currently still working on the code responsible for connecting two Arduinos together over WIFI. Thinking client and server network model for connecting the two Arduinos together instead of peer-to-peer.

| **Strain Ga. (Phuong)** | **IR (Abdul)** | **Build (Khanh)** | **Test (Mutlaq)** | **WiFi (Marshall)** | **Integration** |
| --- | --- | --- | --- | --- | --- |
| Calibrate | Prox. Sensor | 3D model | Give parameters of the project | Setup | Make the story work |
| Weight-Value (The breakdown weight it can handle) | Daylight/Night | Hooking everything up | Environmental Factors (different lighting, door frames, bed weights) | Protocol | Keypad/finger sensor |
| Test | LED/Fluorescent | Battery(Arduino, Sensors) |  | peer to peer | TA at Nov/20 |
| Zeroize | code into arduino | Enclosure |  | dhcp |  |
| Code into Arduino |  |  |  |  |  |
| arduino uno with HTTPS | arduino uno with HTTP |  |  |  |  |

Components:

| 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 #2 | $44.80 | Arduino | Code: ABX00021 / Barcode: 7630049200234 | https://store-usa.arduino.cc/products/arduino-uno-wifi-rev2 |
| Motion Sensor | $ |  |  | JBC 106 |
| Amplifiers |  |  |  | JBC 106 |

Plan (future work):

| Assignment | Due Date |
| --- | --- |
| Test the logic | Codes for IR sensor need rework and codes for strain gauge (calibrate and logic) need to be tested |
| Test the wifi webpage | Connection is done, focus on the webpage |
| Create the first prototype/ model | 11/21 |
| Test the prototype | 11/21 |

Issues: Test the software of the project and fix the code problems. Need to order the parts

Include the schedule for the next meeting:

Meeting Date & Time: TBD

Meeting Location: TBD