

- Hardware requirements will be completed.

Deliverables	Assigned to	Due Date (Week/Date)
Possible Logic PCB to analyze the logic (Altium) <ul style="list-style-type: none"> • Input: from all the function in the code • Output: a signal connected port #(SMS function) to generate a SMS when high • Design schematic, footprint, component library, PCB layout. 	Khanh Le	2/13 (Week 4)
Transceiver testing to transfer information between Arduino boards <ul style="list-style-type: none"> • Ability to send an input to another arduino through the use of a transceiver channel • Code the software to set up a communication pathway between both transceivers 	Marshall	2/27 (Week 6)
New 3D printed enclosure <ul style="list-style-type: none"> • Update for new circuit+ power supply+wires from last semester 	Khanh Le	3/20 (Week 9)
Alarm Logic for the whole system <ul style="list-style-type: none"> • Digital design*(help with memory storage) <ul style="list-style-type: none"> ○ Logic diagram ○ Logic map 	Khanh Le	2/20 (Week 5)
SMS module <ul style="list-style-type: none"> • Research (due 2/20) • Use SIM card to send SMS 	Mutlaq	2/27 (Week 6)
On/Off Switch for power supply <ul style="list-style-type: none"> • A switch • Circuit protection (diode) 	Phong	2/27 (Week 6)
AC power supply compatible <ul style="list-style-type: none"> • Circuit protection 	Abdul	2/27 (Week 6)

Software requirements will be completed.

Deliverables	Assigned to	Due Date (Week/Date)
Read and auto calibrate/zeroize strain gauge function (Github) <ul style="list-style-type: none"> • Input: Take digital signal from strain gauge. • Calibrate: translate the signal to a unit of measurement (kg) • Zeroize: Zero out the weight detected in the first 15 second • Output: A signal to the logic board 	Phong	2/27(Week 6)
Detect movement, IR break function (Github) <ul style="list-style-type: none"> • Input: Take analog signal from sensors • Output: A signal to the logic board • Take into account light sources, distances,... 	Abdul	2/27 (Week 6)
Wifi Connection Function(Github) <ul style="list-style-type: none"> • Option 1: Use two Arduino Uno to make a host and client network. Let the host control the web server and host a webpage. Allows clients to access webpage and keep track of the alarm status • Option 2: Same thing, but using transceivers to tie the two arduinos together and using SMS to notify the caretakers 	Marshall	2/27 (Week 6)
Wifi Web Page UI (Github) <ul style="list-style-type: none"> • User friendly/ working interface • Shows alarm status • Shows current data of sensors? 	Marshall	3/13 (Week 8)
Sending SMS Function (Github) <ul style="list-style-type: none"> • Input: Take data from sensors • Output: Alarm caretakers if sensor data is in the parameters 	Mutlaq	3/6 (Week 7)
Add time to Arduino and webpage (Github) <ul style="list-style-type: none"> • Connect the Arduino to wifi and using the NTP to get the time and date • Or RTC clock 	Abdul	3/6 (Week 7)