

7 ACQUISITION SCHEDULE

To achieve the project goals, we must divide our work into small tasks and we will allocate a certain time period for each task, every task is a milestone in the project and has to be done at the dedicated time in order to open the working process of the next task, the main controller will monitor all the inputs and outputs is the Arduino board, it will sense the human weight using four load cell that will be installed under the user bed for example installing a load cell on each leg of the bed, the load cells will measure the bed weight including the weight of user, and will detect the user existence depending on the weight.

Week	Acquisition Schedule: 1 st Semester	Cost
Week 6	<ul style="list-style-type: none">• Studying the block diagram• Search for desired components• Compare prices and delivery dates	--
Week 7	<ul style="list-style-type: none">• Ordering main controller :15\$• Power supply 5v:12\$• Wires: 10\$• Usb cable 3\$	40\$
Week 8	Purchase the weight sensor parts <ul style="list-style-type: none">• 4 pcs 50kg Load Cells• HX711	12\$
Week 9	<ul style="list-style-type: none">• Ordering IR sensors (detecting incoming or outgoing persons), this sensor should cover 1.5 meter with break beam sensing	32\$
Week 10	Ordering WIFI modem <ul style="list-style-type: none">• ESP8266• Programming board (uploading code)	20\$
Week 11	Ordering the prototyping components <ul style="list-style-type: none">• Box• Base• connectors	50\$

Week 12	Finalize the prototype	--
Week 13	<ul style="list-style-type: none"> Make desired modifications to both system and software 	--
<ul style="list-style-type: none"> TOTAL 		154\$

10 FIRST SEMESTER SCHEDULE

The following table describes MLG's first semester schedule:

Week	Deliverable
Week 6	<ul style="list-style-type: none"> Design the system block diagram Check compatibility between components
Week 7	<ul style="list-style-type: none"> Decide the main controller board Decide the IDE for developing the code
Week 8	<ul style="list-style-type: none"> Ordering the components Research about the available IOT clouds supported by the main controller board
Week 9	<ul style="list-style-type: none"> Assembling the weight sensor to the main controller Develop test code to read and display weight
Week 10	<ul style="list-style-type: none"> Assembling IR sensors to the main board Develop testing code for sensors
Week 11	<ul style="list-style-type: none"> Connect WIFI modem to main board Program WIFI modem to connect to local Wi-Fi network Develop code to send and receive data to WIFI modem
Week 12	<ul style="list-style-type: none"> Configure the selected IOT server to connect to our device Program Wi-Fi modem with the desired IOT credentials Send data from controller to cloud
Week 13	<ul style="list-style-type: none"> Run overall test Make desired modifications to both system and software
Week 14	<ul style="list-style-type: none"> Finalize the final prototype Make final real tests and modifications

Week 15	<ul style="list-style-type: none">• Document the steps of work• Draw the final schematics and connections• Prepare and plan for next steps.
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