Project: veyebrations Date: 9/12/2015

Group Members: Dylan Ayrey, Joshua Pueschel, Raymond Dodge

URL: None yet

Updated Milestone chart

J - Joshua Pueschel, R - Raymond Dodge, D - Dylan Ayrey

	Original Completion	Who does	Modified Completion	Juge, D - Dylaii Ay	,,	<u>Due</u>
<u>Description</u>	<u>Date</u>	<u>it</u>	<u>Date</u>	<u>Comments</u>	<u>Done</u>	<u>next</u> <u>week</u>
Purchase components		JRD	9 - 11 - 15	Had to repurchase some parts	✓	
Unit test components to verify functionality						
Unit test thermistor	9 - 4 - 15	J	9 - 2 - 15	Thermistors are 5% inaccurate.	1	
Unit test proximity sensor	9 - 4 - 15	R	9 - 2 - 15	Accurate to 15 feet	✓	
Unit test amplifier	9 - 4 - 15	D	9 - 11 - 15	Delayed due to shipping	1	
Unit test vibrating motor	9 - 4 - 15	J	9 - 2 - 15	Pulls .06mA at max voltage	1	
Unit test atmega328	9 - 4 - 15	R	9 - 2 - 15	Functions as intended	1	
Unit test radio module	9 - 4 - 15	D	9 - 11 - 15	Need to order level shifter. Testing is delayed	/	
Unit test resistors/switches/buttons/capacitors	9 - 4 - 15	J	9 - 2 - 15	Accurate to within	√	
Unit test power regulator	9 - 4 - 15	D	9 - 2 - 15	Correct voltages demonstrated	/	
Write software for components						
Write software for temperature control	9 - 11 - 15	J	9 - 2 - 15	Complete and tested. Accurate and responsive	1	
Write software for radio communications	9 - 11 - 15	R		Not complete yet		✓
Write software for vibration control	9 - 11 - 15	D		Completed	1	
Write software for proximity detection	9 - 11 - 15	D	9 - 2 - 15	Complete and tested. Delay is	1	

				around 50ms for 15 feet.	
Write software to integrate components	9 - 18 - 15	JRD	09-19-2015	We are waiting on the networking code, the rest is complete	/
Create mockup on breadboard	9 -22 -15	JRD	09-20-2015	Continued work in progress	✓
Integration test mockup and revise	9 -29 -15	JRD	09-27-2015		
Tune vibration control algorithm	9 -29 -15	JRD	09-27-2015	We also added an algorithm to more accurately reflect human vision	
Create PCB board					
Design PCB Schematic	10 - 15 - 15	JRD	10-11-2015		
Design PCB Layout	10 - 18 - 15	JRD	10-17-2015		
Order PCB board	10 - 18 - 15	JRD	10-17-2015		
Create Enclosure					
Design Enclosure	11 - 1 - 15	JRD	11-07-2015		
Print Enclosure	11 - 1 - 15	J	11-07-2015		
Mount components on PCB board					
Mount the surface mount in reflow oven	11 - 8 - 15	JRD	10 - 24 - 2015		
Cleanup the reflow results	11 - 10 -15	JRD	11 - 11 - 2015		
Mount dip components and non-surface mount components	11 - 11 - 15	JRD	11 - 13 - 2015		
Test PCB board	11 - 18 - 15	JRD	11 - 25 - 2015		
Integration test for enclosure and PCB board					
Test board fits in enclosure securely	12 - 9 -15	JRD	11 - 25 - 2015		
Test system functions in enclosure	12 - 9 -15	JRD	11 - 25 - 2015		
Acceptance testing					
Drop test	12 - 9 -15	JRD	11 - 25 - 2015		

Comfortability Test	12 - 9 -15	JRD	11 - 25 - 2015		
Polishing	12 - 12 -15	JRD	11 - 25 - 2015		

Status

We did a lot of networking code. We verified that the wifi module works, and after a lot of struggling, we flashed it with custom code. Now the algorithm needs to be written but the device is in a state where it can accept our algorithm. We also replaced the arduino on the breadboard with the individual components. These changes can be viewed on the github found here: https://github.com/dxa4481/Veyebrations.

Gantt Chart

Veyebrations		Start Date:	August 24, 2015																		
Task	Start Date	End Date	Duration (days)	Percent Complet								6 e	р								П
				Date:		9/7	9/8	99 9	/10 9/11	9/12	9/13 9	/14 9/1	5 9/16	9/17	9/18 9	V19 9/2	20 9/21	9/22 9	23 9/2	4 9/25	9/25 9/
2.0 Write software for components	2015-09-07	2015-09-13		7 87.50%																	
2.1 Write software for temperature control	2015-09-07	2015-09-13		7 100.00%																	
2.2 Write software for radio communications	2015-09-07	2015-09-13	- 1	7 50.00%																	
2.3 Write software for vibration control	2015-09-07	2015-09-13	F	7 100.00%																	
2.4 Write software for proximity detection	2015-09-07	2015-09-13		7 100.00%																	
3.0 Write software to integrate components	2015-09-13	2015-09-19		7 75.00%																	
3.1 Integrate Components	2015-09-13	2015-09-19	-	7 75.00%																	
4.0 Create mockup on breadboard	2015-09-07	2015-09-20	1-	4 75.00%																	
4.1 Create Mockup	2015-09-07	2015-09-20	1	4 75.00%									Т								
5.0 Integration test mockup and revise	2015-09-21	2015-09-27		7 70.00%													Ŷ.			1	
5.1 Integrate software and breadboard and tune vibration control	2015-09-21	2015-09-27		7 70.00%									Т								