

TASK NAME	RESPONSIBLE	Date	Sep-15					Oct-15					Nov-15					Dec-15					Jan-16					Feb-16					Mar-16					Apr-16					May-16				
			1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26	3	10								
<b>General System Design</b>	All	September 4, 2015	[Red bar]																																												
<b>Stator Design</b>		November 17, 2015	[Red bar]																																												
Research Winding Types	Tim	September 22, 2015	[Red bar]																																												
Pole and Slot Pitch	Mason	September 22, 2015	[Red bar]																																												
Pole Depth	All	November 17, 2015	[Red bar]																																												
Slot/Teeth Ratio	All	October 27, 2015	[Red bar]																																												
Number of Coil Windings	All	November 17, 2015	[Red bar]																																												
<b>Purchasing</b>	All	November 30, 2015	[Red bar]																																												
<b>Construction</b>		February 2, 2016	[Red bar]																																												
Coil Windings	Mason and Tim	January 25, 2016	[Red bar]																																												
Stator Mount	Mason and Tim	February 8, 2016	[Red bar]																																												
Microcontroller Sytem	Tyler	February 8, 2016	[Red bar]																																												
VFD Programming	Tyler	February 8, 2016	[Red bar]																																												
Sensor Programming	Tyler	January 25, 2016	[Red bar]																																												
<b>Implementation</b>	All	February 9, 2016	[Red bar]																																												
<b>Testing</b>	All	March 7, 2016	[Red bar]																																												
<b>Deliverables</b>			[Red bar]																																												
Project Proposal - Oral Presentation	All	October 1, 2015	[Red bar]																																												
Project Proposal - Written	All	October 15, 2015	[Red bar]																																												
Webpage Release	All	October 28, 2015	[Red bar]																																												
Fall Progress Presentation	All	November 19, 2015	[Red bar]																																												
Fall Performance Evaluation	All	November 19, 2015	[Red bar]																																												
Fall Performance Review	All	December 3, 2015	[Red bar]																																												
Design Review	All	March 1, 2016	[Red bar]																																												
Final Report Draft	All	April 12, 2016	[Red bar]																																												
Oral Presentation Preparation	All	April 19, 2016	[Red bar]																																												
Final Project Oral Presentation	All	April 21, 2016	[Red bar]																																												
Poster Presentation to IAB	All	April 29, 2016	[Red bar]																																												
Final Project Report	All	May 3, 2016	[Red bar]																																												
Project Website Verification	All	May 3, 2016	[Red bar]																																												

The VFD was tested using a three-phase AC motor. The LIM team familiarized themselves with the VFD. The final set-up for the LIM and the VFD system was drawn out and then wired once the project advisor approved the wiring diagram. The LIM was wired in a wye-connection (star connection) configuration, tying the A<sup>'''</sup>, B<sup>'''</sup>, and C<sup>'''</sup> together to form a floating neutral point or star point. The group then had to move focus from the LIM to work on the rough draft for the final paper and the final presentation.

Initially when the group tested the LIM with the VFD there was a short between the stator coils and the stator core. Performing a continuity test the group was able to determine what coils were creating the short circuit between the stator coils and the stator core. The edges of the stator teeth cut through the bobbins and the insulation of the copper wires of the coil, thus creating a short on each of the phases. When the coils were zip-tied down to the stator the edges of the stator teeth cut through the bobbins and the wires due to the extra pressure. Three coils had to be remade as the integrity of the previous coils were compromised. Plastic tape was added onto the edges of the stator teeth to prevent any further shorting between the stator core and the coils.

Before the final presentation the group was able to test the LIM once again, to no avail. The stator and the coils were no longer shorted, but the motor was not producing the magnetic force to rotate the simulated linear track. More testing will be done once the final presentation is completed.