

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

The group developed a more efficient way of winding the stator coils on the wooden tooth. The time to completely wind a coil decreased from 2 hours to around 30 minutes. The new method of winding the coils used a faster lathe along with some modifications that were made to the original bobbin that was designed. The group needed to modify the original bobbin to include an end piece that allows for the bobbin to fit correctly in the chuck of the new lathe. The modification to the bobbin took about an hour to update, but overall, decreased our coiling time significantly. Over the weekend the group was able to complete seven stator coils, finishing all of the coil windings. It was determined that with four wraps the group was able to get around 240 total wraps per stator tooth. Originally the group planned to have five layers with a goal of completing 217 coil wraps. With the improved efficiency of the wrapping process the group was able to optimize the amount of wraps that could fit onto the stator tooth while minimizing the total amount of layers needed to reach the 217 coil wrapping goal.

Professor Gutschlag was able to unmount the variable frequency drive (VFD) from the downstairs lab in order to allow the group to begin testing the VFD with an 3-phase AC motor. Lenze Tech was contacted to determine whether or not a 3-phase variac could be placed on the output of the VFD to control the voltage input to our motor. Lenze Tech confirmed that placing a variac on the output would not harm the device, and the worst that would happen would be that the onboard screen would give an error, because device was not sensing the expected inductive load. Also this week the group members started compiling the final written report draft.