

MEETING MINUTES 12

Topic: Meeting 12 – Team Leads Meeting

Thursday, January 25, 2018

02:30pm - 03:30pm

Chair: Leo Segura De Niz

Attendees: David Willy, Alana B, Alex D, Anthony C, Devon H, Kory J, Tristan S

Location: Room 323 @ EGR Building

Bring: Critical Path for Project Success

Table 1. Tentative Schedule

02:30pm-02:40pm	<p>Introduction</p> <ol style="list-style-type: none">1. Announcements<ol style="list-style-type: none">a. Storage and workspace in 98C (Contact Azalea Grant)<ol style="list-style-type: none">i. Ask Azalea to provide us with a locker for MEs in CWC. Devon is interested.b. Demographics Due Monday<ol style="list-style-type: none">i. James Sigler, Jacob Peterson, Benjamin Macleod, Spencer McHanon, Qian Zhao, Soud Alsahli, Kory Joe, Yousef Alalic. CWC January All Team Call with DOEd. DOE Webinar<ol style="list-style-type: none">i. Date: Tomorrow Friday 1/26/18 @ 12pmii. Location: Meet at Willy's Office Room 324Ce. Next All Team Call will be in Marchf. Market Team presentation on Final Designg. Email forwarded to Mechanicals<ol style="list-style-type: none">i. page 17 of revision 2 of the R&R.ii. bolts used this year are M10 instead of the smaller 1/4-20s of previous years. Be sure to include adequate tolerances in your hole pattern and diameter to account for this mounting system to prevent any last minute modifications needing to be made at the competition.iii. We are on the same page.h. Question during the DOE meeting<ol style="list-style-type: none">i. whether students were allowed to change the configuration of their turbine between tasksii. "Team members will not be allowed to touch their turbines or controls during the test except during commissioning or to manually restart their turbine if they fail to restart after a safety shutdown test." Thus, if you want to make any configuration change to your turbine or controller (for example when the storage element is connected or disconnected), it will need to happen without explicit external input from the students during the execution of the testing tasks.iii. We are in the same page.i. One more Question<ol style="list-style-type: none">i. During today's call, there was a question concerning which tasks during the tunnel testing contest that the capacitive element would be available. Please refer to section 6.2, pages 21-23 of revision 2 of the R&R. The capacitive element will only be electrically available during the durability portion of the contest. Furthermore, students are reminded that the competition provided
-----------------	---

	<p>load is only available during this task as well. Students must provide their own load for the other tasks.</p> <p>ii. Email to be composed by Alex D.</p>
<p>02:40pm-03:20pm</p>	<p>Discussion Topics</p> <p>Test Team A - Blades, Shaft, DC-DC Converter, Wind Tunnel Testing, Generator</p> <p>Test Team B - Hub, Rectifier, Nacelle, Brakes, Yawing, Load, Tower, Energy Storage</p> <p>Market Team - Blades, Hub, Nacelle, Shaft, Yawing, Tower ...</p> <ol style="list-style-type: none"> 1. Shop Training <ol style="list-style-type: none"> a. We need to talk to them on Monday about potential training sessions this semester. b. Devon is working on it. c. Mechanical Meetings in the machine shop start next week (Weekly). 2. Test Team ordering parts? <ol style="list-style-type: none"> a. EE has a complete parts list. Meeting with Yaramasu. b. ME parts list being finalized and to be finished by Monday. 3. Update on this week's blade meeting with Willy. <ol style="list-style-type: none"> a. Finalizing material selection. b. Redoing analysis today. c. March 1st - will be completed. d. Prototype...Devon planning to have 2 full sets. e. Craig will be supporting with blade design and manufacturing. FEA analysis to be completed. 4. Progress check since last week. <ol style="list-style-type: none"> a. No purchasing and no manufacturing until it has been approved by a technical leader! 5. Where are resources needed within the test teams? <ol style="list-style-type: none"> a. Think about your critical path. What needs to get done and where is the team likely to struggle? b. Also, within test teams are there students that can shift gears to help out with other components? c. Test team will be helping each other to get all components completed. d. EEs think they have enough resources to get everything completed to start testing by March 1st. e. Alex is the project lead for the board? 6. Critical Path <ol style="list-style-type: none"> a. Test Teams : What needs to get done and by when? Are these areas resourced appropriately? <ol style="list-style-type: none"> i. With Devon's focus being on manufacturing, who will take on blade design and mfg. ii. Craig will be helping out with blades. b. Market Team : What does workload look like for the Market Team. Do we have capacity to help out the test teams? <ol style="list-style-type: none"> i. Craig helping with blade design. His workload with the market team will be reduced to accommodate this. ii. If training is offered this semester, market team engineers will try to get trained as well to help out the test team if necessary. iii. The market team can help out in integration between mechanical and electrical components. 7. TEST TEAM DESIGN NOTES <ol style="list-style-type: none"> a. Mainframe

	<ul style="list-style-type: none"> i. Thickness of the mainframe base plate. b. Baseplate <ul style="list-style-type: none"> i. Clearance on the slots of the baseplate that attach to the wind tunnel plate. Clearance for an M10 bolt. Look up the ID of an M10 washer for the clearance. c. Tower <ul style="list-style-type: none"> i. Snap ring groove ii. Use parting tool iii. Bearings and tower do not match in diameter iv. 2.5 cm need to fit bearing 1, spacer 1, bearing 2, spacer and clearance v. Do full system assembly to ensure final sizes fit within the required specification in the R&R. vi. Chanfer the top of the tower! vii. Clearance between the tower and the mainframe needs to be correct so that there is no rubbing between the tower and mainframe. d. Everything needs to be in cm! e. Need the slip ring assembly f. Metric fasteners all the way around.
<p>03:20pm-03:30pm</p>	<p>Plan for next meeting</p> <ol style="list-style-type: none"> 1. Review deliverables/ tasks/ to-do's to be completed by the next meeting. 2. The market team can help out in integration between mechanical and electrical components. 3. Continue on mechanical design to determine areas of redesign prior to manufacturing. 4. ME design updates per the notes above. 5. MEs meet with Willy to show some of the design changes. 6. Have dimensioned drawings for mechanical parts. It makes it easy to communicate. Maybe keep an updated PDF file with your updated design.