

Practicum Team 1

Meeting runtime: 4:15 PM - 4:35 PM

Agenda:

- Finalize and submit PDS (ensure requirements are “requirements” and not “specifications”). The rest has been proofread by Chris and Henry and is okayed.
- Discuss the division of tasks and next steps:
 - How do we feel about subgroups of 2 for every task? That way we’re all learning and cross-checking one another’s work
 - Schematic
 - 3D Modeling (use battery dimensions for now?)
 - Prototyping/Programming:
 - Delivery date for parts: 10/23
- Do we still want to do a walkthrough of Git/GitHub?

Summary:

- PDS Completed
- Division of tasks:
 - Schematic: (Henry and Brad), Software: **KiCAD**, Altium Designer, LTSpice...?
 - 3D Modeling: (Caleb...and everyone else), Software: Fusion 360, something else...?
 - Prototyping and Programming: (Chris and Caleb), Breadboard, Protoboard, **C**
- Next steps: HW Wk 05
 - Preliminary Schematic
 - Your preliminary schematic should have all of your major components in it, including the power supply, sensor, controller, and actuator. It should have some text and notes, and maybe some to-dos on it and question marks and whatnot; remember, it has to be preliminary, it doesn't have to be final. And, of course, make sure this is checked in under version control!
 - Submit it in TWO WAYS:
 - Print a PDF of your schematic and upload it to Canvas.
 - Enter a URL to your collaboration site to the folder where your schematic files are checked in.
 - Make a decision! (Group)
 - Make a decision, using both Design Matrix and AHP methodologies!
 - First, choose something you want to decide on. I suggest something for your practicum project, like the microcontroller, or sensor, or maybe that new graphics card you've been wanting to buy! If you just can't come up

with an idea to decide on, then choose something to purchase, like a new electric vehicle (5 pts).

- Make a Decision Matrix of this decision (5 pts).
- You must have at least four criteria. For an EV purchase, use Price, Range, 0-60 time, and Safety.
- You must have at least three alternatives. For an EV purchase, use Tesla Model 3, Hyundai Ioniq 5, Nissan Leaf
- Now take that Decision Matrix from (2) above and use AHP instead using the same criteria and alternatives. Show your weights, comparison sub-tables, etc (5 pts).
- Did you get the same final result?
- Put all of this in a single document. Show the final matrices in the form of tables, and very briefly discuss each criteria calculation. (5 pts) I strongly recommend that you learn how to insert a Google Sheet into a Google Doc. That way you can calculate your table in the Sheet, and display it in your writeup in the Doc.
- Upload your document as a PDF file.