# ece411 Project Schedule

http://

Project manager

**Project dates** Oct 30, 2023 - Dec 8, 2023

Completion0%Tasks16Resources4

Project schedule for ece411 team5's audio visualizer.

### Tasks

| Name   | Begin date | End date |
|--|------------|----------|
| Breadboard Prototype   | 10/30/23   | 11/1/23  |
| Create a breadboard prototype of the audio visualizer. Done by putting all the components together onto a BB and using wires on hand to connect the circuit.   |            |          |
| Updated Schematic and Preliminary Layout   | 10/30/23   | 11/1/23  |
| Your schematic should now be much closer to completion.  |            |          |
| Your preliminary board layout should have all of your major components on it, including power supply, sensor, controller, and actuator. It should have a vaguely reasonable board outline. It doesn't have to be fully routed, or even halfway routed, but components should be grouped together, and components should be put in sane places. |            |          |
| And, of course, make sure this is checked in under version control!  |            |          |
| Submit it in TWO WAYS:   |            |          |
| Print a PDF of your schematic and board layout and upload it to Canvas. Enter a URL to your collaboration site to the folder where your schematic and layout files are checked in.   |            |          |
| Code Microphone  | 11/3/23    | 11/7/23  |
| Interface microphone component with ESP32 and make it functional.  |            |          |
| Code LED Control   | 11/3/23    | 11/7/23  |
| Interface 8x32 LED panel with ESP32 and be able to control it. Basic control being able to light up "bars" to represent the incoming frequencies.  |            |          |
| Code Frequency Analyzer  | 11/3/23    | 11/7/23  |
| Code a frequency analyzer (FFS) onto the ESP32.  |            |          |
| Combine and Test Code  | 11/8/23    | 11/12/23 |
| Combine the code from each component to get a working audio visualizer<br>prototype.   |            |          |
| Debug and Fix  | 11/13/23   | 11/17/23 |
| Debug the combined code and fix any errors.  |            |          |
| Bill of Materials  | 11/4/23    | 11/5/23  |
| Final BOM filled here:<br>https://docs.google.com/spreadsheets/d/1jbas32DcEDZ59e13n7u7allfJYj-<br>6RpcqCJsSKwKe8E/edit?usp=sharing   |            |          |
| Make sure to upload to GitHub  |            |          |
| Rough Draft of CAD   | 11/5/23    | 11/7/23  |
| The only things left are changes for out of stock components, changes from design reviews, changes for DFX, etc.!  |            |          |
| And, of course, make sure this is checked in under version control!  |            |          |
| Submit it in TWO WAYS:   |            |          |
| Print a PDF of your schematic and board layout and upload it to Canvas. Enter a URL to your collaboration site to the folder where your schematic and layout files are checked in.   |            |          |
| Functional Decomposition   | 11/4/23    | 11/6/23  |
| Draw a top-level (Level 0) block diagram of your practicum project showing all inputs and outputs.   |            |          |
| Draw a Level 1 block diagram showing the principal components or modules of your project along with the interconnections between them. LABEL ALL INTERCONNECTIONS.   |            |          |
| Consult the lecture slides for proper format for capturing the block diagram and describing inputs and outputs.  |            |          |
| Post these to your collab site and upload a PDF to Canvas.   |            |          |
| Design Review  | 11/11/23   | 11/14/23 |
| Have at least one other team design review your schematic and layout. Bonus points for more than one design review by more than one team. Be attentive! Take notes!  |            |          |
| Submit which team(s) (use their team number) did your design review(s).  |            |          |

# Tasks

| Name  | Begin date | End date |
|---|------------|----------|
| Final CAD   | 11/15/23   | 11/16/23 |
| After your design review, fix all of the critical issues, go through all the checklists again, and then declare it done!  |            |          |
| And of course, check it in to your versioning system!   |            |          |
| Submit it in TWO WAYS:  |            |          |
| Print a PDF of your schematic and board layout and upload it to Canvas.<br>Enter a URL to your collaboration site to the folder where your schematic and<br>layout files are checked i                |            |          |
| Send Board to FAB   | 11/16/23   | 11/16/23 |
| Must be sent between 12 p.m. Thursday and 10 a.m. Friday.   |            |          |
| Test Plan   | 11/23/23   | 11/27/23 |
| Create a comprehensive hierarchical test plan for your practicum project. Consult the course lecture notes for guidelines. Submit at least three test plans (see optional testing template document). |            |          |
| Create detailed test case descriptions for two tests included in your test plan.  |            |          |
| Your work will be graded on completeness, conformance to design documentation requirements as described in class, and quality and clarity of the individual test cases.                               |            |          |
| Post these to your team wiki and upload a single PDF file of them to Canvas.  |            |          |
| Assemble Final Build  | 11/28/23   | 11/28/23 |
| Presentation  | 12/7/23    | 12/7/23  |
| 30 minutes, either Thursday or Friday   |            |          |

# Resources

| Name    | Default role |
|---------|--------------|
| Gene Hu | developer    |
| Flynn   | developer    |
| Meshal  | developer    |
| Aziz    | developer    |

**Gantt Chart** 

Oct 2023 November 2023

| Project | Segin date | End da 11/1/23 Code LED Control Debug and Fix 11/11/23 Design Review 11/14/23 Test Plan 

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Assemble Final Build

### **Resources Chart** 6 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 Code LED Control Debug and Fix Design Review Test Plan Assemble Final Build Presentation Updated Schematic and... Bill of Materials Rough Draft of CAD Design Review Send Board to FAB Final CAD Assemble Final Build Presentation Code Frequency Analyzer Debug and Fix Bill of Materials Design Review Test Plan ■ ■ Aziz Code Microphone Debug and Fix Bill of Materials Functional Decomposition Design Review