

# ECE412\_capstone

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Jan 23, 2025

<http://>

Project manager

Project dates

Jan 23, 2025 - Jun 3, 2025

Completion

0%

Tasks

32

Resources

0

## Tasks

2

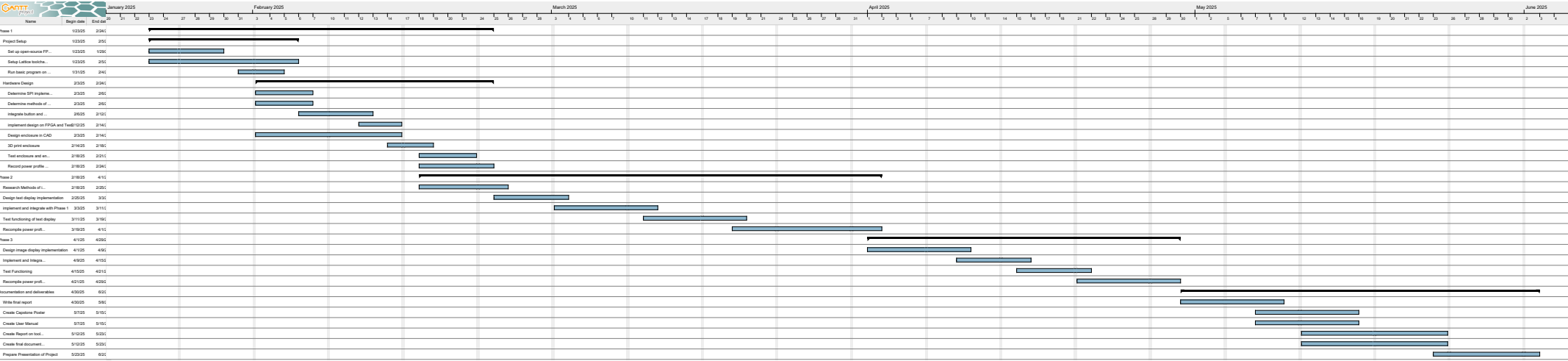
Name	Begin date	End date
Phase 1	1/23/25	2/24/25
Project Setup	1/23/25	2/5/25
Set up open-source FPGA toolchain (Yosys)	1/23/25	1/29/25
Setup Lattice toolchain and associate environment	1/23/25	2/5/25
Run basic program on Upduino using both toolchains	1/31/25	2/4/25
Hardware Design	2/3/25	2/24/25
Determine SPI implementation to communicate with LCD	2/3/25	2/6/25
Determine methods of Brightness/color change functionality	2/3/25	2/6/25
integrate button and SPI implementations	2/6/25	2/12/25
implement design on FPGA and Test	2/12/25	2/14/25
Design enclosure in CAD	2/3/25	2/14/25
3D print enclosure	2/14/25	2/18/25
Test enclosure and ensure it is as we intended	2/18/25	2/21/25
Record power profile output and begin comparison	2/18/25	2/24/25
Phase 2	2/18/25	4/1/25
Research Methods of implementing Text display	2/18/25	2/25/25
Design text display implementation	2/25/25	3/3/25
implement and integrate with Phase 1	3/3/25	3/11/25
Test functioning of text display	3/11/25	3/19/25
Recompile power profile results, and compare with Phase 1	3/19/25	4/1/25
Phase 3	4/1/25	4/29/25
Design image display implementation	4/1/25	4/9/25
Implement and Integrate with Phase 2	4/9/25	4/15/25
Test Functioning	4/15/25	4/21/25
Recompile power profile data and compare with previous phases	4/21/25	4/29/25

## Tasks

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Name	Begin date	End date
Documentation and deliverables	4/30/25	6/2/25
Write final report	4/30/25	5/8/25
Create Capstone Poster	5/7/25	5/15/25
Create User Manual	5/7/25	5/15/25
Create Report on toolchain Comparison	5/12/25	5/23/25
Create final document for power profile visualization	5/12/25	5/23/25
Prepare Presentation of Project	5/23/25	6/2/25

Gantt Chart



Resources Chart

