

Final Project

- [Final Project Guidelines](#)

Final Project Guidelines

In this final module, you are given the opportunity to create a project with your group members under the following provisions:

- **Project Title:** Discuss with your teaching assistant (To be determined by **May 3, 2026**, at the latest).
- **Github Link:** Submit your github link on EMAS3 submissions (only one person from each group needs to submit the link), **deadline on: May 3, 2026**.
- **Project Submission Deadline: May 17, 2026, 23:59 WIB.**
- **Presentation Week: May 18-22, 2026** (discuss the exact schedule with your teaching assistant).

Final Project Criteria

Here are the criteria for the final project:

- **Hardware Features:** Must use sensors, serial communication (I2C, SPI, or USART), data processing, and actuators or visual/auditory indicators (LED/Buzzer).
- **Programming Language:** The program must be written in **Assembly language (.S)**.
- **Minimum Modules:** The project must fulfill at least **6 Modules** out of 8 available modules.
- **Power Source:** The Arduino must be powered by a standalone power supply or battery.
- **Repository:** Create a public repository on GitHub for your project submission.
- **Contribution Logging:** Each individual must commit regularly so that their contributions are visible in the final project (there will also be a contribution assessment form).
- **Communication:** The teaching assistant must be invited to your group's LINE chat.
- **Version Control Rules: Force pushing to the repository is strictly prohibited** as it can delete the commit history.
- **Deliverables:** The deliverables in the GitHub repository must include:
 - Report (.pdf)
 - Source code (.S)
 - Proteus simulation (.pdsprj) / Wokwi Link
 - Documentation (.md)
 - Photos of the actual physical circuit
- **Proteus References:** Arduino references for Proteus can be viewed [here](#) and [here](#).
- **Documentation Requirement:** It is mandatory to create a `README.md` file in the final project repository containing an explanation of the project.
- **Product Utility:** The created product must have practical value and be able to solve a specific problem.

README.md Structure

The `README.md` must include the following sections/headings:

1. Introduction to the problem and the solution
2. Hardware design and implementation details
3. Software implementation details
4. Test results and performance evaluation
5. Conclusion and future work

Final Project Grading Weights

- **Report** (PDF, MD, & PDSRJ): **15%**
- **Presentation** (PPT, Delivery, QnA, & Understanding): **20%**
- **Complexity**: **25%**
- **Idea Creativity**: **10%**
- **Success Rate / Functionality**: **30%**