CMP 438 COMMUNICATING ROBOTS

PROFESSOR: YANILDA PERALTA RAMOS

GROUP PROJECT GUIDELINES

SELECT YOUR GROUP PROJECT:

- Visit this spreadsheet to pick your group project. Ensure each group selects only one project and confirms it is not already chosen by another group.

COMMUNICATE AND ASSIGN TASKS:

- Establish effective communication with your teammates. Use platforms like Slack, email, or group chats to discuss and distribute tasks.
- Assign specific roles and responsibilities to each team member. This can include tasks such as design lead, coding lead, report writer, component assembler, etc.

DESIGN YOUR ARDUINO PROJECT:

- Begin by creating a detailed design of your project. This can include diagrams, schematics, and flowcharts that outline how the project will function.
- Use tools such as TinkerCAD or Fritzing to visualize your design and ensure all components are properly integrated.

BUILD YOUR PROJECT WITH PHYSICAL COMPONENTS:

- Gather all necessary physical components and assemble them according to your design.
- Ensure each component works as intended by testing them individually before integrating them into the full project.

DEVELOP AND UPLOAD CODE:

- Write the code required for your project and test it to confirm it functions correctly.
- Upload your finalized code to a **public GitHub repository** to share with your team and instructors. Make sure the repository includes clear documentation and comments in the code for readability.

CREATE A PUBLIC SIMULATION:

- Simulate your project design using online platforms such as Tinkercad or any relevant simulation tool.
- Include a link to this public simulation in your final report, ensuring that anyone with the link can access and view it.

PREPARE YOUR REPORT:

- Write a comprehensive report that covers:
  - Project overview and objectives
  - Design diagrams and explanations
  - Component list and assembly process
  - Code summary with a link to the GitHub repository

    - Link to the public simulation
- Ensure the report is well organized and follows a logical structure.

PREPARE AND DELIVER YOUR PRESENTATION:

- Create a presentation that showcases:
    - The design process and methodology
    - Assembly and testing phases with images or video evidence
    - Live demonstration of the project using actual physical components
- Practice the presentation to ensure clarity, confidence, and time management.

DEADLINE:

- **November 27, 2025**: Submit all components of the project, including the report and the public GitHub repository link, before this date.

RUBRIC BREAKDOWN:

- **Functionality**: 30% – The project must meet its intended purpose and function seamlessly.
- **Working Components Assembly**: 20% – Proper assembly and integration of all physical components.
- **Code**: 10% – Code should be efficient, well-documented, and functional.
- **Design**: 10% – Clear and effective design documentation.
- **Report**: 10% – Comprehensive and well-organized report.
- **Presentation**: 20% – Clear, professional, and engaging presentation with actual components showcased.

Follow these steps thoroughly to complete your project successfully and on time. Good luck!