Assignment 3: BaseBot Build

Module 2: Basic Building and Programming

Due Date: See Teams

Objective:

In this assignment, you and your partner(s) will work together to build a BaseBot following the instructions provided. This project will help you develop teamwork and practical assembly skills, focusing on structural integrity and understanding the basic components of robotics.

Part 1: Building the BaseBot

Instructions:

1. **Work in Pairs:**
    - You and your partner(s) will collaborate throughout the building process. Both partners **must** be involved in every step of the build. Take turns assembling parts and assist each other in ensuring accurate and efficient assembly.
2. **Follow the EXP BaseBot Build Instructions:**
    - Use the provided manual to build your BaseBot. Ensure all parts are correctly assembled, paying close attention to structural integrity.
3. **Check and Adjust:**
    - Once the BaseBot is assembled, review your work together to ensure everything is correctly placed. Make any necessary adjustments before considering the build complete.

Part 2: Reflection Piece

After completing the build, each student will individually complete a reflection on the project. Highlight your response.

1. What did you enjoy most about the building process, and why?

2. What part of the assembly did you find the most challenging? How did you and your partner work together to overcome that challenge?

3. What new skills or knowledge did you gain from building the BaseBot?

4. How well do you think you and your partner communicated and collaborated throughout the process? Provide examples of how you worked together.

5. If you could change one thing about the build or your approach to the project, what would it be and why?

Grading Rubric:

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Participation and Teamwork	Both partners equally contributed and communicated effectively throughout the build.	Both partners participated with some minor lapses in communication.	Partners contributed unevenly, with some communication issues.	Minimal participation or poor communication between partners.
BaseBot Assembly	BaseBot was assembled correctly with no errors, demonstrating strong attention to detail.	BaseBot was assembled with minor errors that were quickly corrected.	Some parts were incorrectly assembled, and multiple corrections were needed.	Significant assembly errors and lack of attention to detail.
Reflection Depth	Reflection is thorough, insightful, and demonstrates a deep understanding of the project experience.	Reflection is thoughtful, with a good understanding of the project experience.	Reflection is basic, with limited insight into the project and challenges faced.	Reflection is incomplete or lacks detail and understanding of the project.
Problem-Solving	Students demonstrated strong problem-solving and troubleshooting skills during the build.	Some problem-solving was demonstrated, with occasional reliance on the teacher.	Limited problem-solving was demonstrated, with frequent reliance on outside help.	Minimal problem-solving skills, frequently unable to address issues independently.