

Robotics - Assignment #1

Unit 1: Introduction to Robotics and Team Setup

Guiding Question: How do we collaborate effectively in robotics?

Learning Outcomes:

- Understand the course structure and the importance of teamwork.
- Familiarize yourself with VEX EXP kits and their components.

Assignment: Team Collaboration and VEX EXP Kit Overview Presentation

Objective: Create a presentation in your group (2-3 members) that demonstrates your understanding of effective team collaboration and the basic components of the VEX EXP kit. This assignment will set the foundation for successful teamwork and technical skills throughout the course.

EXP Kit Components: <https://content.vexrobotics.com/docs/280-7735-750-Rev7.pdf>

Presentation Requirements:

Your presentation should cover the following key areas:

1. Introduction:

- Briefly introduce your group members and your roles within the project.

2. Team Collaboration:

- **Task Division:** Explain how tasks were divided among group members. Ensure that each role is clearly defined.
- **Problem-Solving Strategies:** Discuss how your group plans to handle potential problems (e.g., disagreements, technical issues). Include strategies for maintaining clear communication and ensuring that everyone is on track.

3. VEX EXP Kit Overview:

- **Component Identification:** List the main electronic components in the VEX EXP kit and describe their functions within the robotics system.
- **Equipment Handling:** Describe how you will handle and maintain these components to ensure safe and effective use.

4. Conclusion:

- Summarize your key points and reflect on what your group has learned about collaboration and the VEX EXP kit.

Presentation Format:

- Length: 5-7 minutes
- Visual Aids: Use slides, diagrams, or other visual aids to enhance your explanation.

Due Date: See Teams

Grading Rubric

| Criteria | Excellent (4) | Good (3) | Satisfactory (2) | Needs Improvement (1) |
|-----------------------------------|--|--|--|---|
| Task Division | Tasks were divided equally, and roles were clearly defined. | Tasks were divided, with minor issues in role clarity. | Tasks were divided unevenly, with some unclear roles. | Tasks were not clearly divided or defined. |
| Problem-Solving Strategies | Thoughtful and practical strategies for handling problems. | Practical strategies with some room for improvement. | Basic strategies with limited practical application. | Little to no problem-solving strategies presented. |
| Component Identification | All key components accurately identified and well explained. | Most key components identified and explained. | Some components identified, but explanations lacked detail. | Few components identified, with weak explanations. |
| Equipment Handling | Clear and thorough explanation of safe and effective handling. | Good explanation, with minor details missing. | Basic explanation, lacking detail or clarity. | Little to no explanation of equipment handling. |
| Presentation Quality | Well-organized, engaging, and clear; excellent use of visual aids. | Organized and clear, with good use of visual aids. | Some organization and clarity; visual aids used but not effectively. | Disorganized, unclear, and poor use of visual aids. |
| Group Participation | All members actively participated and | Most members participated, | Uneven participation, with one or two | Little to no participation from some |

| | | | | |
|--|-------------------------|---------------------------|------------------------|-------------------|
| | contributed equally. | with minor imbalances. | members dominating. | group members. |
|--|-------------------------|---------------------------|------------------------|-------------------|

Total Score: ____ / 24

Comments: