Greater Chicago

Period One - Project Plan

Goals and Tasks for Botball 2019

Game Goals and Tasks

1. Review Game Rules and Documents (01/24)
    - Read rules aloud to the team (01/24)
    - Distribute packets to the team members (01/24)
2. Strategies (01/28)
    - Discuss the Create and Lego robot strategies and discuss the pros and cons for each robot (01/24)
    - Team leaders will give input as to which strategies might work best (01/24)
    - Team will decide on strategies (01/28)
3. Build the Practice Board (1/22)
    - List needed materials to assemble board (1/22)
    - Adult team leader procures the needed materials (1/20)
    - Team leader assembles the game board (1/22)

Robot Building Goals and Tasks

1. Plan the Create and Lego robots (01/24)
    - Complete a labeled drawing of the concept for the Create robot based on the chosen strategy (01/24)
    - Complete a labeled drawing of the concept for the Lego robot based on the chosen strategy (01/24)
2. Construct the LEGO robot (04/07)
    - Construct the pushing mechanism (02/20)
    - Construct a grabbing mechanism (02/20)
    - Construct a bin to attach to the robot (03/07)
    - Attach needed motors, servos and sensors (04/02)
3. Construct the Create robot (04/07)
    - Construct the upper arm with a claw (02/20)
    - Construct the lower arm (02/20)
    - Construct camera and attachment mechanism (02/27)
    - Attach needed motors, servos, and sensors (04/02)

Programming Goals and Tasks

1. Run Test Programs (02/15)
    - Program basic movements using the workshop demobot (02/11)
    - Program precision turns using the workshop demobot (02/11)
    - Program each sensor using the workshop demobot (02/14)
2. Complete Program for LEGO Robot (03/18)
    - Write pseudocode with building team for LEGO robot (02/11)
    - Program precision turns (02/11)
    - Program the pushing mechanism (02/11)
    - Program the grabbing mechanism (02/18)
    - Program the bin's release mechanism (02/24)
    - Test all programming for LEGO robot with build team (03/4)
    - Program light sensor (03/28)
3. Complete Program for Create Robot (04/02)
    - Write pseudocode with building team for Create robot (02/11)
    - Program the upper arm with the claw (02/18)
    - Program the camera (02/18)
    - Test all programming for Create robot with build team (03/4)
    - Program light sensor (03/28)

Documentation Goals and Tasks

1. First Period Documentation complete (02/05)
    - Class meeting to see the overall schedule, assign tasks and decide on conflict resolution (01/24)
    - Gather information from building and programming teams to establish goals and tasks for the season (01/24)
2. Second Period Documentation complete (02/27)
    - Gather data from build team for assignment (02/21)
    - Gather data from programming team for the assignment (02/21)
3. Third Period Documentation complete (04/03)
    - Set up computer for everyone to take survey (04/02)
    - Gather information from all of the team members for lessons learned from the botball 2019 experience (04/02)
4. Oral Presentation complete (04/07)

Schedule Conflicts

School Performance- various days
Lifeguard/swim instructor- Sunday mornings from 9-12
Holiday- March 21st (all day)
Computer Science class- Sunday afternoons from 2-4

Team Organization

Meeting Schedule

Regional workshop- January 20th and 21st
Regional tournament- April 7th

Each meeting will run from: On Sunday- 4-6
On Monday- 6:45-8:45
On Thursday-6:45-8:45

Schedule for January- 20, 21, 24, 28, 31
Schedule for February- 3, 4, 7, 10, 11, 14, 17, 18, 21, 24, 25, 28
Schedule for March- 1, 4, 7, 8, 11, 14, 15, 18, 21, 22, 25,. 28, 29
Schedule for April- 2, 5, 7
Meetings will be on Sundays, Mondays, and Thursdays

Labor Division

- Adult Team Leader: Mr. Jonathan Keller
- Student Team Leaders: Sarah Feinberg and Elisheva Saltzberg
- Robot Building Team for Create robot: Sarah Feinberg and Meira Tova
- Robot Building Team for Lego robot: Sarah Feinberg and Meira Tova
- Programmer for Create robot: Elisheva Satzberg
- Programmer for Lego robot: Meira Tova Cohen
- Documentation Team: Meira Tova Cohen, Sarah Feinberg, Elisheva Saltzberg

Conflict Resolution

The team has agreed that if disagreements occur we will handle them in the following way:

1. The people who are having the disagreement will attempt to work it out among themselves. Each team member will express their opinion, and attempt to come to a resolution.
2. If an agreement cannot be reached, the team members will bring their problem to, the student team leader.
3. If an agreement still cannot be reached, or if the disagreement involves the student team leader, the team members will bring their problem to the adult team leader, Mr. Keller.
4. Mr. Keller will either decide on the best solution or will bring it to the team for discussion, and possibly conduct a team vote. Mr. Keller's decision, or the decision made by the team, will be final.