(0250/gmhshornets7)

Greater DC Virginia

Period 1 Project Plan

Goals and Tasks for Botball 2019

Game Goals and Tasks

1. Read and understand the game rules (Deadline: 1/27/19)
    a. Make a team set of game rules to place in binder (Deadline: 1/23/19)
2. Set up game board (Deadline: 1/25/19)
    a. Construct skyscrapers and medical centers (Deadline: 1/25/19)
    b. Place tapes (Deadline: 1/25/19)
3. Do 3D tasks (tasks above the game board) (Deadline: 3/4/19)
    a. Do gas valve and electrical line tasks (Deadline: 2/15/19)
    b. Move Botguy and Mayor to disaster relief (Deadline: 3/4/19)
4. Do 2D tasks (tasks on game board surface) (Deadline: 3/4/19)
    a. Get people, water, and food to disaster relief (Deadline: 2/18/19)
    b. Get firefighters to flood zone (Deadline: 3/4/19)

Robot Building Goals and Tasks

1. Create
    a. Create a base to build attachments off of (Deadline: 2/1/19)
    b. Design an arm to raise and lower attachments (Deadline: 2/8/19)
    c. Design an attachment to manipulate pieces for gas valve and electrical lines (Deadline: 2/8/19)
2. Lego
    a. Build basic Lego robot frame/structure (Deadline: 2/6/19)
    b. Design scoop attachment for moving water poms (Deadline: 2/8/19)
    c. Design claw attachment for moving citizens and firefighters (Deadline: 2/12/19)

Programming Goals and Tasks

1. Create
    a. Write pseudocode for Create programs (Deadline: 2/5/19)
    b. Program to complete gas valve task (Deadline: 2/12/19)
        i. Program Create to move to gas valve (Deadline: 2/6/19)

ii. Program Create robot attachment to raise gas valve (Deadline: 2/12/19)
iii. Program Create to move the gas valve to the utility zone (Deadline: 2/12/19)

c. Program to complete electrical line (Deadline: 2/15/19)
i. Program Create to move to electrical line (Deadline: 2/12/19)
ii. Program Create robot attachment to raise power line washer to the magnet (Deadline: 2/15/19)

d. Program to get botguy into disaster relief zone (Deadline: 3/4/19)
e. Program to get mayor into disaster relief zone (Deadline: 3/4/19)
f. Run complete test of programs with attachments (Deadline: 3/4/19)

2. Lego
a. Write pseudocode for Lego programs (Deadline: 2/5/19)
b. Program Lego robot to move water poms to water reclamation unit (Deadline: 2/15/19)
i. Program Lego robot to move to poms and collect them (Deadline: 2/13/19)
ii. Program Lego robot to move poms to water reclamation unit (Deadline: 2/15/19)

c. Program to move citizens to disaster relief zone (Deadline: 2/18/19)
d. Program to move firefighters to top of burning medical center (Deadline: 2/22/19)
e. Run complete test of programs with attachments (Deadline: 2/25/19)

Documentation Goals and Tasks

1. First Period Documentation Complete 1/22/19
a. Class meeting to set the overall schedule, assign tasks and decide on conflict resolution 1/15/19
b. Gather info from building and programming teams to establish goals and tasks for the season 1/20/19

2. Second Period Documentation Complete 2/19/19
a. Gather data from build team for assignment 2/12/19
b. Gather data from programming team for assignment 2/17/19

3. Third Period Documentation Complete 3/5/19
a. Set up computer for everyone to take survey 3/3/19
b. Gather info from team members for lessons learned

Schedule Conflicts

1. Beginning of spring sports - most team members play sports (3/1/19 through 5/24/19).
2. Spring break - several members will be on vacation (4/15/19 through 4/22/19).
3. Last day of school - team members might have extra curricular activities (6/14 until 7/7/19, date of GCER)

Team Organization

1. Team Captain: Bailey Berg
    a. Build Expert: Braedon Myers
    b. Programming Expert: Maya Lee
2. Lego Team:
    a. Maya Lee - Programming
    b. Olivia Sowa - Programming
    c. Lily Simmerman - Building
    d. Pauline Cha - Building
    e. Braedon Myers - Building
3. Create Team:
    a. Bailey Berg - Building
    b. Ryan Rex - Programming/Building
    c. Garrett Crownover - Building
    d. Daniel McLawhorn - Programming
    e. Taylor Berry - Building