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