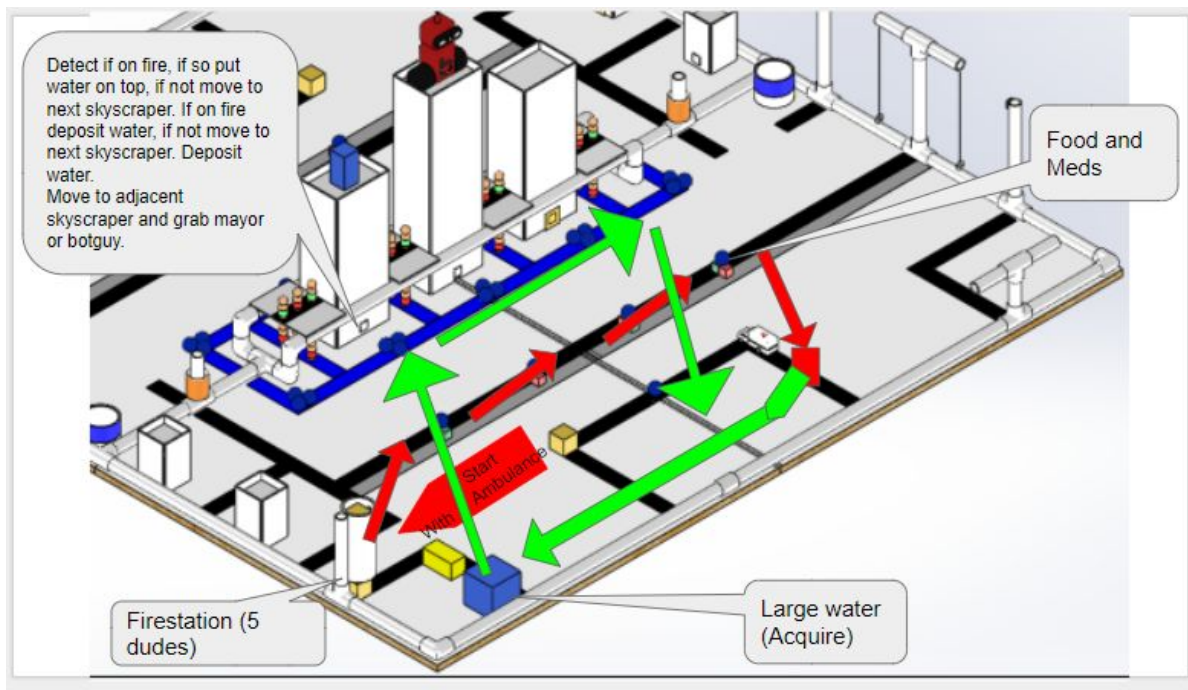


Period One - Project Plan

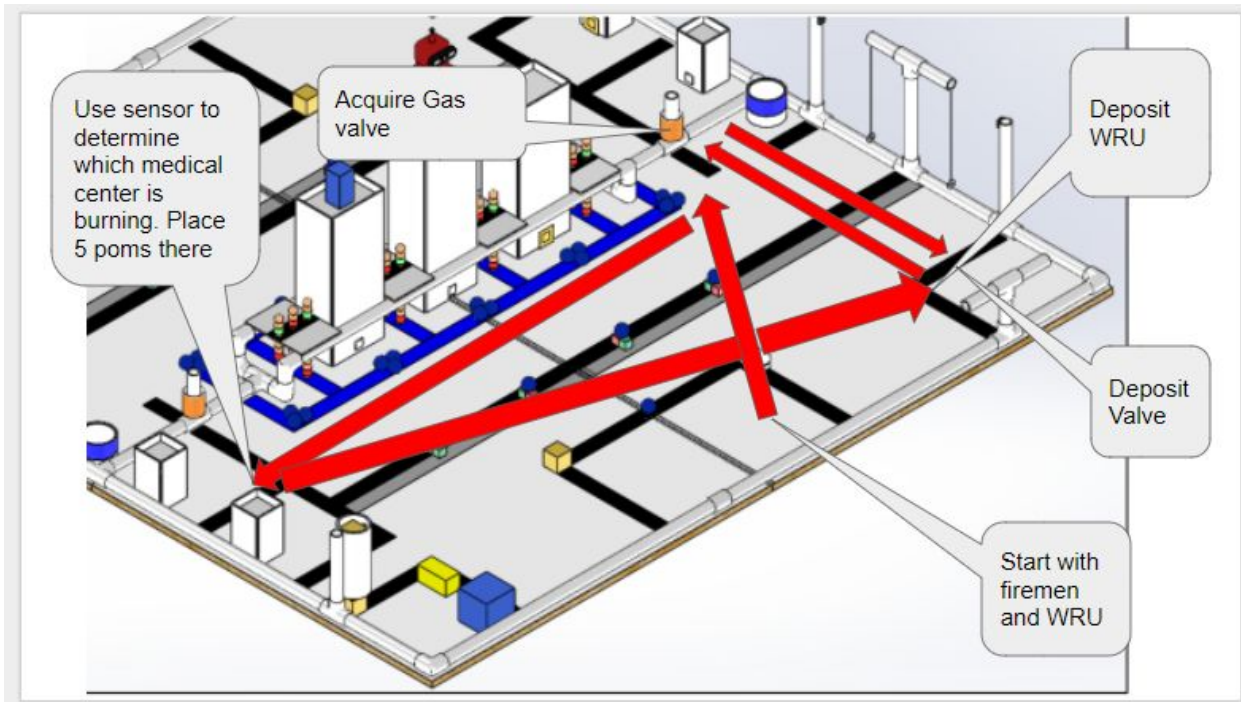
Goals and Tasks for Botball 2019

1. Game Goals and Tasks

- a. Review the Game Rule Documents and Score Rubric // 01.28.19
 - i. Ask questions regarding rules and scoring // 01.28.19
 - ii. Test rules and scoring comprehension // 01.28.19
- b. Brainstorming Strategies // 01.29.19
 - i. Come up with Create Scoring plan // 01.29.19
 1. Transport the ambulance into burning medical center zone
 2. Sweep firefighters into fire station
 3. Plow all medical and food supplies into the disaster relief zone
 4. Place large water container on top of burning skyscraper
 5. Move mayor/botguy into the disaster relief zone



- ii. Come up with LEGO scoring plan // 01.29.19
 1. Deposit firefighter in flood zone
 2. Move WRU over water poms in a line
 3. Transport WRU to utility station
 4. Transport gas valve into utility zone



- c. Ensuring the Create and LEGO robots work together on the board // 04.05.19
 - i. Run both Create and LEGO programs simultaneously // 03.29.19
 - 1. Make sure each step runs without interfering with each other.
 - ii. Review and resolve conflicts within test runs // 04.05.19
- 2. Robot Building Goals and Tasks
 - a. Prototype the Create and LEGO Robots // 02.06.19
 - i. Complete detailed drawings and design of Create robot with all components // 02.06.19
 - ii. Complete detailed drawings and design of LEGO robot with all components // 02.06.19
 - b. Complete Create Robot Construction // 03.02.19
 - i. Finish constructing plow for food, medical supplies and ambulance. // 02.08.19
 - ii. Finish constructing the firefighter sweeper mechanism. // 02.15.19
 - iii. Finish constructing 6 bar lift for water cube and grab botguy. // 02.28.19
 - c. Complete LEGO Robot Construction // 03.02.19
 - i. Finish constructing LEGO robot drivetrain // 02.08.19
 - 1. 2 Wheel drive with swerve wheel in the back
 - ii. Finish constructing a claw to transport firefighter to flood zone // 02.15.19

- iii. Finish constructing plow to funnel poms and WRU lifter to acquire 15 water poms // 02.15.19
 - iv. Finish constructing utility claw to move gas valve // 02.22.18
- 3. Programming Goals and Tasks
 - a. Research and Practice Using Code // 02.15.19
 - i. Program encoders to move forward with Create robot workshop // 02.04.19
 - ii. Program encoders to turn 90 degrees and 45 degrees with the Create robot workshop // 02.06.19
 - iii. Program color camera, ET sensor, servos, and motors using the Create robot workshop // 02.08.19
 - iv. Program encoders to move forward with LEGO robot workshop // 02.11.19
 - v. Program encoders to turn 90 degrees and 45 degrees with LEGO robot workshop // 02.13.19
 - vi. Program ET sensor and servos using the LEGO robot workshop // 02.15.19
 - b. Complete programs for Create robot // 03.29.19
 - i. Write pseudocode with construction team for Create robot // 02.11.19
 - ii. Program motors to push ambulance into burning medical center zone // 02.15.19
 - iii. Program color camera to find burning medical center // 02.15.19
 - iv. Program motors to sweep firefighters into fire station // 03.01.19
 - v. Program color camera to find burning skyscraper // 03.08.19
 - vi. Program ET sensor to measure the distance itself and the burning skyscraper // 03.08.19
 - vii. Program servo for 6 bar lift mechanism to lift water cube // 03.15.19
 - viii. Program servo to open/close claw for the water cube // 03.15.19
 - ix. Program motors to move to skyscraper where botguy/mayor is located // 03.22.19
 - x. Test all programming for Create robot with build team // 03.29.19
 - c. Complete programs for LEGO robot // 03.29.19
 - i. Write pseudocode with construction team for LEGO robot // 02.08.19
 - ii. Program servos to move utility claw mechanism up, down, open, and close // 02.15.19
 - iii. Program servo utility claw to move water reclamation unit through flood zone // 02.22.19
 - iv. Program color sensor to locate burning medical center // 03.01.19

- v. Program hard mounted plow mechanism to deliver excess water to burning medical center // 03.08.19
- vi. Program servo utility claw to move water reclamation unit movement to utility zone // 03.15.19
- vii. Program servo utility claw to move gas valve into the utility zone // 03.22.19
- viii. Test all programming for LEGO robot with construction team // 03.29.19

Documentation Goals and Tasks

1. First Period Documentation Complete // 01.30.19
 - a. Team meeting to assign roles, tasks, and schedule // 01.28.19
 - b. Determine goals and tasks for programming and building robots // 01.28.19
2. Second Period Documentation Complete // 02.27.19
 - a. Gather information from build and programming teams // 02.22.19
 - b. Compile data and submit assignments // 02.27.19
3. Third Period Documentation Complete // 04.03.19
 - a. Submit all student surveys // 03.29.19
 - b. Compile information from teams and submit assignments // 04.03.19
4. Onsite Presentation // 04.06.19
 - a. Distribute presentation roles to team members // 03.22.19
 - b. Create outline of presentation // 03.25.19
 - c. Complete presentation draft // 03.28.19
 - d. Review and practice presentation as needed // 04.05.19

Schedule Conflicts

1. February 9th : End of swim team season - Kaitlyn cannot attend after-school meetings up until this date.
2. February 15th : Morgan is leaving early for an orthodontist appointment
3. February 18th : No in-school meeting due to Presidents' Day
4. March 1st : Morgan is leaving early for Church Youth Trip
5. March 1st : Start of spring sports - Gerchel, Ryan, Morgan and Karl may not be able to attend after-school meetings after this date.
6. March 27-29th : Kaitlyn will be at a Maryland Association of Student Councils Convention and unable to attend meetings
7. April 4th : Karl and Ryan will not be in class for Battalion Quarters

Team Organization

1. Schedule for meeting times
 - a. Mondays: 1:05 - 2:45 pm
 - b. Tuesdays: 12:35 - 1:05 pm
 - c. Wednesdays: 1:05 - 2:45 pm
 - d. Thursdays: 12:35 - 1:05 pm
 - e. Fridays: 12:05 - 2:45 pm
 - f. Tournament - April 6th, 2019
2. Division of Labor
 - a. Team Lead : Ryan Lowe
 - b. Robot Building Team for Create Robot : Morgan Hunt and Samantha Lang
 - c. Robot Building Team for LEGO Robot : Ryan Lowe
 - d. Programmers for Create Robot : Gerchel Toledo and Karl Kent
 - e. Programmers for LEGO Robot : Kaitlyn Zhou and Leanna Eldridge
3. Conflict Resolution
 - a. When disagreements among team members arise, everyone will individually express their opinions and thoughts in order to reach a resolution.
 - b. If team members are unable to resolve the conflict, talk to the team leader, Ryan Lowe.
 - c. If the conflict is still unresolved talk to the adult team leader, Mr Skinner.
 - d. If the conflict is unrelated to the team and botball, please do not let it affect your performance as a team member.