Explorer Post 1010
Botball Team 16-0160
Greater DC Region

Period 3 Lessons Learned

Experience Gained

Kathleen: I learned how to code for driving with the omniwheels. This was a challenge at first because they are a new feature to the competition.

Sophia: I learned to work with robots and bring a concept to fruition. More importantly I learned that to work with a team, communication is key. Never underestimate the power of an email.

Anne-Michelle: I have learned how to code a robot in the C language, which I had never done before, being a builder.

Dominic: I learned how to code a robot in c++. This is a very beneficial skill now and I expect to use it later in life as well.

Moses: I gained experience working with Tetrix pieces to build robots. I also programmed in C for the first time.

Josh: I learned some problem solving skills by analyzing the situation that the robot is in.

Documentation Process

Kathleen: The team should read over the requirements for each period of documentation so that it's clear what the documents need.

Sophia: The documentation process is a long and overall dull one. Most importantly it is a clear example of the powers of communication. Either one person does it all and suffers for the sake of their team or multiple people collaborate and make sure that both are capable of completing the doc on time. However regardless of these challenges our team gained first hand experience in how communication in the team should work and the impact it could have if it does not.

Anne-Michelle: It makes it easier on all of the team if everyone on the team does a portion of the documentation, as we "lose" one member from the loop if they are the sole person working on documentation.

Dominic: I learned that documentation is an important part of building a robot.

Moses: I learned the process and planning involved in building a robot.

Austin: I learned good techniques for recording information for doc and the usefulness of planning.

Josh: I learned to take analyzed information and transfer the information for useful future references.

Surprises

Kathleen: While the omniwheels moved very smoothly, coding for them was a different experience than coding for regular wheels. The position of all three wheels and motors affected the robot's movement. Rotational motion was the trickiest to perfect.

Sophia: The greatest surprise was that the new parts were a challenge… but an achievable one. While the new IED posed numerous challenges, most due to the illogical nature of needing the robot nearby to access programs (making working remotely impossible) the omni chassis and link were easy enough to use after a bit of practice.

Anne-Michelle: The Omni chassis is not as hard to code as we had thought it would be, also, it has no noticeable amount of drift.

Dominic:The low quality wifi surprised me most during my botball experience.

Moses: I was surprised by how incompatible and flimsy the pieces were, and how we worked past these limits.

Austin: The new IDE based on connecting to the wallabies through wifi.

Josh: Nothing about the Botball experience was very surprising except my first workshop experience.

Advice for Future Teams

Kathleen: Get familiar with the parts in your kit before you start working on your robots. While figuring out how things work along the way isn't impossible, your work process will go smoother if you know your limits.

Sophia: Stay connected with your team members in multiple ways. Have their email, phone number, Facebook, etc. It's ok and normal that problems arise. There is only an issue when you can't tell someone and resolve it.

Anne-Michelle: Become whatever is needed. If all of the builders are unavailable, learn to build, even if you are a programmer, and vice versa.

Dominic: Don't trust the battery percentage on the wallaby, its never accurate.

Moses: Be involved and work as a team!

Austin: I learned more about programming in robotC and using the botball libraries. I also learned about teamwork and that staying organized is key to a great robot and program.

Josh: Be available when you can for your Botball teams and try to help out as much as possible with any aspect of the robot or the team such observation/analysis or leadership.