My Time in Botball Jonah Eadie Palm Desert Charter Middle School

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The Beginning

There have been few things in my life that I can compare to Botball. This competition has not only helped me meet people who are interested in the same things I am, but has also taught me many life lessons that I will cherish for the rest of my life. To begin telling my story of the journey Botball has brought me, I think I will start where every great story has begun: the beginning.

I began my 6th grade year without anyone I knew. My family had moved from La Quinta so I could go to a better school, and I was lost in a sea of cries of friends, and water bottles flying through the air. At least I was lost until I went to 5th period, robotics.

Robotics contained everything I had always been interested in: computers, robots, and a lot of neat looking flashing lights. I was amazed the first time I ever made a robot move by a few clicks of a mouse, and I was hooked. I began doing as much research on different robots as I could, and I decided to expand my knowledge of C++, which I quit learning the year before due to too much responsibilities. After a while, I made a few friends in my robotics class, and they started telling me about various different robotics competitions, and about how we would start making teams for a competition known as First Lego League, or FLL. Unfortunately, due to my mom's illnesses I was unable to attend the night parents were supposed to go to to sign up their children for FLL.

I felt left out, and very upset that I wouldn't be able to go to the competition. Then, a few weeks later, I found out about something that would transform my love for robotics: a competition known simply as Botball. Immediately I signed up for the competition, and began attending practices every Monday and Tuesday after school. My team was interesting to say the least. On my team were Cassie Bija, Hank Eylicio (team leader), Ernie Foli, Parker Robinson, Jagdeep Deol, Jose Franco, and myself.

Instantly I was rushed away, given only some materials, a computer, and a CBC. I began experimenting with the equipment, finding out how a servo worked, and learned how to create a sturdy design.

I did my best to contribute the most as I possibly could to my team. Only Cassie and myself were in the 6th grade, so we definitely had a lot to learn from our older, more experienced teammates. Even though we were young, unlike a lot of other teams, we were still treated like valuable members of the team.

Cassie and I were in charge of the presentation and documentation on our team, and often had to ask other team members how different parts of our robot worked.

Hurdles

Up until regionals, we had a lot of hurdles to overcome. For one, we had to figure out how to score the highest amount of points we could on the Botball board. To solve this problem, we often held team meetings, where we would all give our 2 cents, and talk about the possible solutions. For example, around April we heard there were rule changes in the Botball game. Apparently stacking the blocks, which our robot relied upon to score, had been cut in half of the possible points, going from 80 to 40. We frantically scrambled to come up with a possible alternative, on the brink of scrapping our block stacking robot. Fortunately, we soon found out that we interpreted the rules incorrectly, and the blocks actually became *twice* as many points as they were, and not half as many. That was great for us because block stacking is what our robot does.

Preparations

At the beginning of the Botball season, we all casually worked on our robot, trying every idea we could think of, not worrying at all about the upcoming competition. However, this carefree attitude suddenly disappeared as we began getting closer and closer to our deadline.

We began experimenting with a possibility of a ping-pong ball collecting second robot, with a revolutionarily simple design. However, the troubleshooting of the robot lasted a long time, and we eventually just had to scrap it, as the competition loomed.

The day I left for The University of San Diego (See Pic. 1) was one of the most anxious of my life. Recently, we had problems with one of our motors, and didn't have time to figure out what was wrong with it. As I sat in the car, I wondered if Cassie and I's presentation would be successful or not. It is a lot of stress to have 1/3 of a competition hanging on your shoulders.



Pic.1 University of San Diego

When we got to the hotel, I saw a lot of people I knew. All of the hotel employees knew of the competition, and seemed as excited as we were for it. The day we got there, it was my team leader's, Hank's, birthday. To celebrate, we all went to Dave and Busters to celebrate, and meet up one last time before the all important competition. After the gathering, we all went back to the hotel and slept during this sleepless, anxious night.

The Competition

Finally, it was the date of the fate deciding competition. We all had a hardy breakfast at the hotel, and were prepared for what we were about to partake in. As we drove to the university, all I could think about was the malfunctioning motor. If this thing broke down on use during double elimination, we would be toast.

Fortunately, I didn't have a lot of time to think about the motor. We soon arrived at the

competition, and we were all ecstatic, in that anxious sort of way right before of important things. You could feel the tension in the room, and it was awesome. The air of competition inside the building was exhilarating, and we were all ready to succeed. My team blasted through seeding with the highest score of any other team, even though we didn't do well on the first run. You can see Hank and I getting the robot ready in Pic. 2.



Pic. 2 Preparing our Robot at Regionals Left: Jonah Eadie Right: Hank Eylicio

After seeding, which was relaxing compared to what comes next, it was time to begin the main attraction: double elimination. On our first few matches, the other teams practically forfeited, we were the only ones scoring points! At least until our final match, up against the very aggressive, sabotaging team of Torrey Pines. We were prepared to lose this one, even though we hoped we wouldn't. As the robots hit the "runway", my heartbeat raced as I saw the malfunctioning motor slightly twitch. As we began to stack blocks, the motor failed! It wasn't able to stack the blocks. Luckily, the other teams robot was disqualified, as they chose the wrong program for their robot to run. We couldn't believe, but we actually won!

What I've Learned

After experiencing the Botball regionals competition, I have learned many life lessons that I will cherish for my entire life. For example, I have learned that voting on ideas, and also compromising when ideas differ, is a necessity in life. For example, once, when my team was building our stack blocking robot Biggysmalls, we had differing opinions of whether or not it should also drop airplanes, or use our second robot as a plane dropping robot. Eventually, we voted that Biggysmalls should drop planes, and this ended up to be a fantastic idea.

Also, I've found that seeking help, and then giving help in return will also help you go far, like when I was learning all of the forwards and backwards of KISS-C. In addition to this, I have come to know that helping your teammates, splitting up and working on different jobs, and discussing ideas with each other is a great idea. Going to Botball, I learned that sticking with people who want you to succeed, listening to everyone's ideas, and trying the hardest you can is something you should always remember.

The Future

Right now, we are preparing for nationals. In fact, I should probably help my teammates out right now while we work on our robot! I am very excited to participate in the GCER competition, and will definitely be in Botball, and robotics in general, for years to come.

Because of Botball, I plan to go to M.I.T., and graduate with a degree in engineering. I am very glad I was able to participate in this competition.

Bibliography:

Pic. 1 "University of San Diego." Web. 1 Jun 2011. <<u>http://www.californiacolleges.edu/</u>school_logos/AICCUMentor/University_of_San_Diego/University_of_San_Diego1.jpg>

Pic. 2 "Preparing our Robot at Regionals." *Palm Desert Robotics Team Takes First In San Diego Competition*. Web. 1 Jun 2011. http://o1.aolcdn.com/dims-shared/dims3/PATCH/resize/600x450/http://hss-prod.hss.aol.com/hss/storage/patch/2bd5d4933697c52fe2b38e706db2bb9>.