Rusty's Robotics 19-0167

## Experience Gained

We have gained a lot of experience this season in Botball. Our programmers have gained experience in programming, and they have become much better at what they do. Our programmers would not have programmed nearly as much as they have this year without the opportunities that Botball provides. Our builders have gained building experience, which led to improvements in our robots. Without Botball, our builders would not have built as much as they have this season, and would not have gained as much experience.

## **Documentation Process**

We learned to use GitHub because of Botball Online Project Documentation this season. We probably would not have used GitHub if it had not been required. Now that we know how to use GitHub we may be more likely to use it in the future. Because we were required to use GitHub we did, and now we are glad that we did, because it provides a convenient way to store and edit code. We also gained writing experience, which is always good, and the video was kind of fun.

## Surprises

We were surprised by the changed documentation. We were expecting the same assignments as we had done the last few years. We like the new assignments better. We were surprised by lots of little things, like how you can now submit your documentation close to midnight instead of the deadline being in the afternoon, and how you are now required to put your team name and number on documents instead of being penalized if you did. There are also many more lines on the board than in years past, which surprised us, but is good because we use like to use reflectance sensors often.

## Advice for Future Teams

Future teams should not wait for the game board to come out to start their season. Unless they don't have robots and need to wait for the workshop to pick them up, future teams should start building and programming their robots as early as possible. They can build the DemoBot, and a generic claw or collection bin. Their programmers should code as much as possible, and so that they have working code for each sensor and some accurate turning and movement code in case dead reckoning is the only option somewhere on the board. If future teams follow this advice, all they will have to do once the game boards come out is piece together parts of robots and code that they already have, instead of starting after the workshop and only having a couple months to do everything.