

PERIOD 3 - LESSONS LEARNED

EXPERIENCE GAINED

Mohammed Muaaz Assad: Botball taught me the importance of teamwork, communication and hard work.

Syed Muhammad Fawwad: I enhanced my creativity by solving problems that arised whilst designing and building the small bot

Adrian Irshad: Experiencing the teamwork in a competitive environment, within a group of different personalities

Mustapha Abdelkader Benkablia: building fundamentals

Satya Dharmawan: - Improved my programming skills as well as my team work skills

Nassima Zerouali:

- solving problems that come up with building and trying to find suitable solutions for it
- programming in the language of C and controlling the movement and functionality of the big bot through programming
- being patient with any problems that might arise and resolve them slowly

Mahmoud Ali Soliman: Managing time, Patience and Importance of testing

Ahmed:

The experience I gained from Botball was major, and I can say this having never taken part in any design/build event in the past on this scale. My experience can be categorized into three parts:

1. Mechanics: I learnt about the essential components of automated marines such as touch sensors, grayscale, sensors that use ticks as well as how servos and motors can be used to produce more complex components like rotating arms, extensible claws and forklifts
2. Coding: Towards the beginning I learnt a small bit about how to use the language C to produce a code that enables the bots to perform basic functions like move in a square and pick up the blue poms etc.
3. Strategy and Team work: On a number of occasions we have changes of plans and areas were we received support from teammates to resolve issues. This embedded a sense of understanding in me about what team work really looks like and the importance of trial and error to produce effective results.

I hope to continue gaining more beneficial experiences from BOTBALL.

Raoul Vincent Capulong Reyes: Mechanical design. Being able to work with a team of various strengths and weaknesses.

Shahryar Ahmed: I gained experience on how to program in C which I had never learnt. Botball also made me work in an environment involving robotics which I had never experienced.

Hagar Ali Shalabi: Teamwork skills

Mehdi Bouchebri: Problem solving and teamwork

Dani Haritz Bin Leozarin: I've learnt how to allocate my time effectively, allowing myself to organize tasks in ascending order of importance and how to manage my efforts accordingly.

DOCUMENTATION PROCESS

Mohammed Muaaz Assad: The documentation process taught me how to set goals early on, as this allows us to plan ahead of time and use time as efficiently as possible. Once P1 was completed time management was at its best.

Shahryar Ahmed: I learnt that the amount of errors that occur during testing period is countless. Therefore you shouldn't hesitate to start over and make sure that you stay patient.

Dani Haritz Bin Leozarin: It was quite unexpected how demanding documentation can actually be, to understand, record and explain everything about their team's process proved to be a difficulty that one could overcome - provided that they allocate their efforts to it.

SURPRISES

Mohammed Muaaz Assad: The documentation was easier than expected, and most of our problems were based around time management.

Syed Muhammad Fawwad: The thought process behind building the bot required very thorough attention

Adrian Irshad: How difficult it may be for everyone in the group to agree on an idea

Mustapha Abdelkader Benkablia: how important each detail in the building process really is

Satya Dharmawan: That the bot was actually hard to build

Nassima Zerouali: building the big bot was a lot harder than I thought it would be and requires a lot of teamwork

Mahmoud Ali Soliman: Building the bot is much harder than it seems and the time given flies by quickly

Ahmed: Yes, in fact. There were many parts and pieces that I thought would be way beyond our ability to build. These included the claws and arms of both the small not and the big not, especially the for lift which was a final minute replacement for the other idea we had. Then there is also the documentation part which I was quite surprised about in the sense that I did not expect so much effort and proportion of our time to be put in it, but it certainly seems to be a main aspect of every engineering project so it deserves the attention we gave it.

Raoul Vincent Capulong Reyes: Assembly of robot was very perplexing.

Shahryar Ahmed: I realized how much perseverance and patience is required in order to finally make and program a successful Bot.

Hagar Ali Shalabi: The amount of detail required to efficiently allow the robot to move

Mehdi Bouchebri: Things Do not always go as planned

Dani Haritz Bin Leozarin: It was quite unexpected how demanding documentation can actually be, to understand, record and explain everything about their team's process proved to be a difficulty that one could overcome - provided that they allocate their efforts to it (documentation).

ADVICE FOR FUTURE TEAMS

Mohammed Muaaz Assad:

- Time is key
- Make sure you note down the dead lines
- and don't forget to communicate with others

Syed Muhammad Fawwad: Plan, Plan and Plan

Adrian Irshad: Always trust your teammates, and listen in on what they have to say when it comes to elaborating on ideas

Mustapha Abdelkader Benkablia: make sure to cover several ideas for how the robot will be built, and then decide on a superior one, as constantly changing the structure consumes a lot of time

Satya Dharmawan: for 99% of the time, listen to what ideas other people are giving you before you start saying and complaining that it will not work.

Nassima Zerouali:

- work and think together as a team of possible designs for the robot

- when trying to solve issues or problems with building or programming its faster to deal with them when there is less arguing
- start as soon as you can
- when building always refer back to your game board to make sure your robot fits with all the rules that it comes with

Mahmoud Ali Soliman: Start working on your ideas straight away, because they might sound easy to pull off but then you end up spending too much time trying to get it to work also understanding how the Lego pieces work will save you lots of time. You should also make sure that you know when all the deadlines are so that you don't miss them.

Ahmed:

Attendance is a key playing factor in how the team's plans progress. Having good attendance and punctuality to daily sessions enables the team to:

1. Negotiate ideas and look at them from a variety of viewpoints.
2. Get more done in a shorter period of time.
3. Enjoy the experience more through meeting friends etc.

I thus, firmly believe that attendance is vital and perhaps more superior to things like planning and strategizing, as there is no planning or strategizing or even building without frequent attendance.

Raoul Vincent Capulong Reyes:

- Make sure no one is sitting around and waiting.
- The sooner you realize flaws, the better.
- Start early.

Shahryar Ahmed: Make sure that you communicate and put your ideas forward, and say patient it isn't as easy as you think it will be. Don't be afraid of starting over, not all ideas work.

Hagar Ali Shalabi: Time is key.

Mehdi Bouchebri: Plan as a team before doing anything

Dani Haritz Bin Leozarin: Be open-minded! Don't let your team be so fixated on shortcomings, understand that not all ideas will work - a lot of ideas need to can be improved if one would just broaden their horizon, listen to others.