

ENGINEERING PORTFOLIO

#19769

BetaWolves FTC
2023-2024 Season

Center stage



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Summary Page

Team #19679

We have had our ups and downs this season but overall had plenty of fun. We worked hard and played hard!

If you look at page number 21 you will see some of the sketches of the robot we had made. We can look at page 6 for our early plans on the bucket.

Daily Entries

Meeting Entry

Date: 9-12-23 (kickoff)

Location: Robotics lab

Attendees: James, Shawn, Abby, Max, Austin, Ryan, Briar

Entered by: James

To start off the robotics season, everyone gathered to watch the kickoff video. We discussed what was in the video and had the mentors give a clear visual on what robotics is all about. After that, everyone broke up into groups and brainstormed their ideas on how the robot should be designed. They eventually got together and discussed their thought process.

Meeting Entry

Date: 9-28-2023

Attendees: James, Ryan, Max, Zenya, Alexis, Miles

Location: Robotics lab

Entered By: Alexis and Zenya

Meeting Highlights:

The meeting started by everyone working on their main project of the week. The bucket was the main focus in robotics this week, we had measured many pieces for the bucket. Everyone was hard at work. After measuring, our team had cut the pieces they wanted to add to the bucket. The bucket shall be used as a way of gather the pixels to gain our points. The bucket is our biggest helper because without it we would struggle so much to get the points we need to move on to the next round.

Meeting Entry

Date: 10-5-2023

Attendees: Zenya, Alexis, Max, Shaun, Ryan

Location: Robotics lab

Entered By: Zenya, and Alexis

Meeting Highlights:

Today we had started by talking about the robot and the design we wanted to focus on. After we had started to put the robot together. We began the notebook outline. We went over the self assessment sheet and created the outline. The self assessment sheet will help us figure out what were suppose to be doing when, where, and how.

Meeting Entry

Date: 10-5-2023

Attendees: James, Max, Zenya, Alexis, Ryan, Shawn

Location: Robotics lab

Entered By: Alexis and Zenya

Meeting Highlights:

Everyone was very happy and excited to be there at robotics when they arrived. They worked non stop and very hard on the robot. It makes us feel very accomplished to get this stuff done because every little bit of progress we get done is going to help us get through the competitions when needed. We had put tubes on for the intake of the pixels. The tubes/noodle type things would help suck up the pixels by rotating and we have two bars with the tubes/noodles. This helps us a lot because we would have almost no way to get it into the robot in order to get points.

Meeting Entry

Date: 10-10-2023

Attendees: Alexis, James, Shaun, Miles, Max

Location: Robotics lab

Entered By: Alexis

Meeting Highlights:

Everyone hurried to work. Today we had taken many things apart and also built a lot.. Shaun was working on the "scooper" as everyone else were making the beams. They all worked as best as they could and got together using their words and minds; figuring out what they want to work on separately and in groups.

Meeting Entry

Date: 10-12-23

Attendees: Shawn, Max, Miles, James, Austin, Ryan, Alexis, Zenya

Location: Robotics lab

Entered By: Alexis, James , and Zenya

Meeting Highlights:

Max had started by adding to the surgical tubing to the bar. Shaun decided to work on the "Scooper" that picks up the pixels. The others worked on the robots structure while Zenya, Alexis, and James worked on the engineering Notebook. We need so many people per day to help on this notebook because it will be the "guide" is the way I would word it, but it will help us throughout the competition .

Meeting Entry

Page 5

Date: 10/16/2023

Attendees: Zenya, Max, and Ryan

Location: Robotics lab

Entered By: Zenya

Meeting Highlights:

On this day, which is currently October 16th, we have to restart some of our build. The reason for this is because they have found it will help when it comes down to the competition. When we go to competition, we want to have all the help we can get. The reason leading to this is we can feel very accomplished in ourselves with all the progress we have made. Our team may be smaller than other schools but when we work together we get a lot done. Most of the members went to the decathlon for FFA. This caused half of our members not to be here.. Even though there aren't many people here today, we are still accomplishing a lot. We had to extend our days of robotics in order to get more done by adding Mondays. The reason leading to this is everyone thought it would be progressive. We have four weeks left to get all this work done but in my opinion we have gotten a lot done so far.

Meeting Entry

Date:10/19/2023

Attendees: Miles, Ryan, James, Shaun, and Zenya

Location: Robotics lab

Entered By: Zenya

Meeting Highlights:

Ok so for today we are going to be wiring the whole robot, so we can get it to finally move. We got the build from last week done so we are moving onto wiring. Wiring is the main part besides the robot because without wiring we wouldn't be able to do anything really. Our fabricating team built a lot of the robot now it is up to the electrical person to wire the robot. d

Meeting Entry

Date: 10/23/2023

Attendees: Alexis, Max, Ryan, Austin, Miles

Location: Robotics lab

Entered By: Alexis

Meeting Highlights:

Today at practise everyone got to work as usual but first there was a fun cleaning session of sweeping and picking up. Max even decided to go an extra mile to clean the other rooms as well. We started to look at the Team Game Element construction. Today was a calm day so not much different happened.

Meeting Entry

Date: 10-24-2023

Attendees: Zenya, Alexis, Max, Ryan

Location: Robotics lab

Entered By: Alexis

Meeting Highlights: We continued building and made so much progress as we had also started coding. Our team talked about what we shall do next meeting and enjoyed the time we spent.

Meeting Entry

Date: 11-6-2023

Attendees: Ryan, James, Alexis, Zenya, Miles, Max

Location: Robotics lab

Entered by: Alexis

Meeting Highlights: Today coding got more difficult as we had to figure out how to get the bucket working to go up and get the pixels out. The driver wanted to know if we could make it go down so they don't have to press an extra button.

Meeting Entry

Date: 11-7-2023

Attendees: Zenya, Alexis, Miles, Shaun, Max, Ryan, James

Location: Robotics lab

Entered by: Alexis

Meeting Highlights: Today the coders tested more code and people got to drive. We started talking about having an extra practice since some people wanted to add a day but they are not sure.

Meeting Entry

Date:11-9-2023

Attendees: James, Zenya, Alexis, Shaun, Miles, Austin, Shaun

Location: Robotics lab

Entered by: Alexis

Meeting Highlights: We finished coding the bucket but now we need to work on Auton coding. The robot is finished for the most part, so now as the coders work, the rest of the team practices driving. We had talked about the props and are thinking of making cardboard boxes and tape them with red and blue tape. We chose to hold practice this saturday as well.

Meeting Entry

Date: 11-11-2023

Attendees: Max, Alexis, Miles

Location: Robotics lab

Entered by: Alexis

Meeting Highlights: Today we worked on Auton one coding. Max focused on coding for the most part as Alexis worked on the engineering notebook and Miles helped with basically everything.

Meeting Entry

Date:11-13-2023

Attendees: Max, Alexis, Miles, Shaun, Ryan, Zenya

Location: Robotics lab

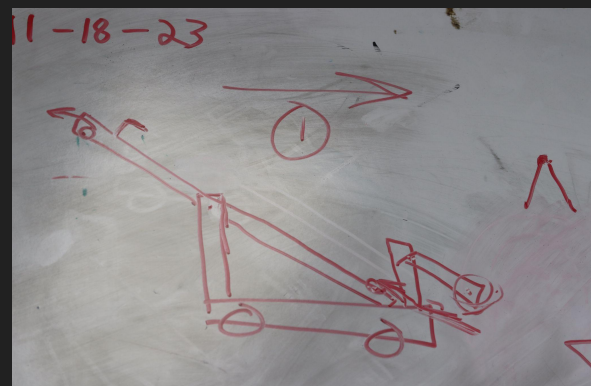
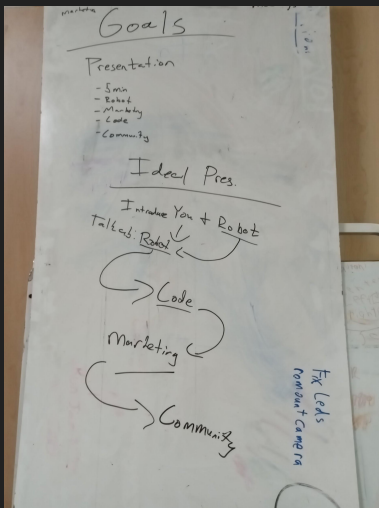
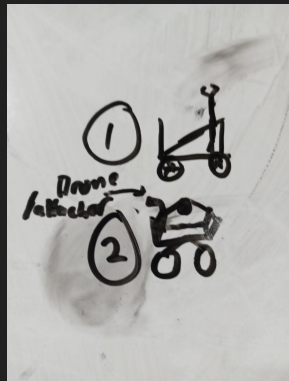
Entered by: Alexis

Meeting Highlights:

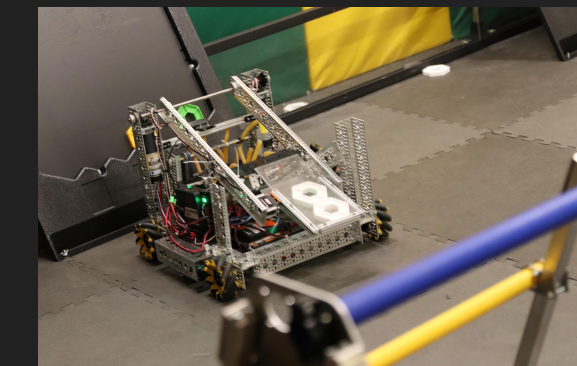
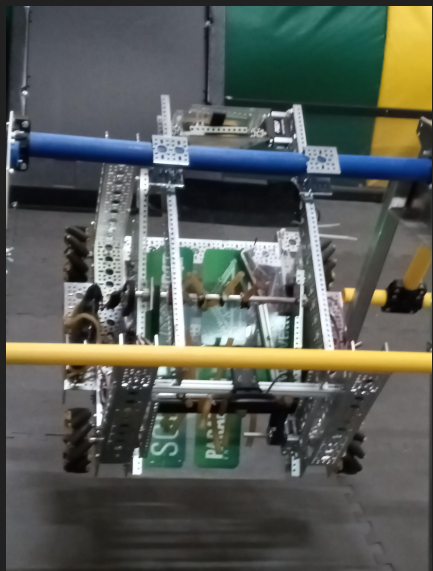
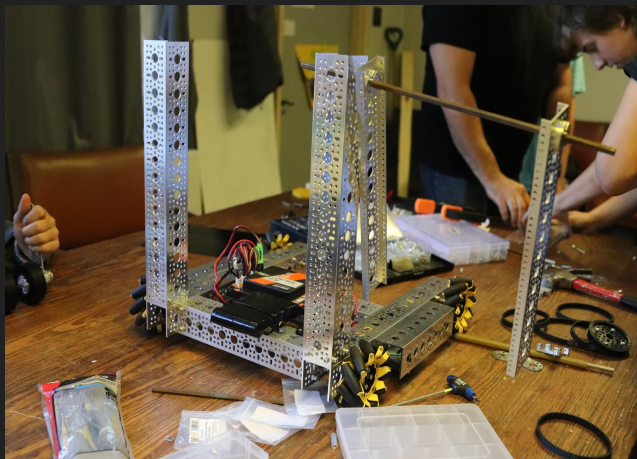
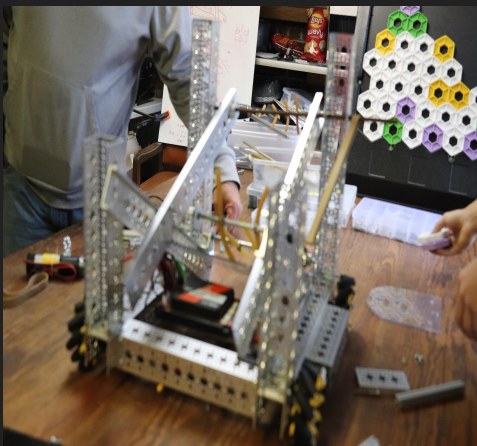
Today people practised driving as Alexis edited the Notebook and Max continued Coding. The drivers were chosen and got very good progress on controlling it.

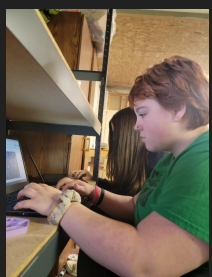
**Photos, Team
overview,
and Team
Strategy**

Engineering Section

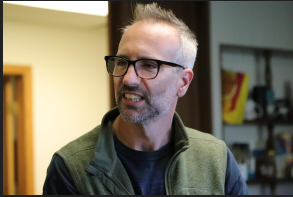
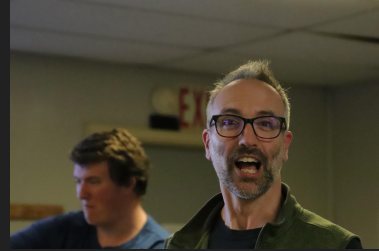


INFORMATION





INNOVATION



Team overview

We are the BetaWolves FTC #19679

We work in the building close to the school right next to the workout room!

Our robot represents our team by its unique design. Our team members are unique as is everyone else. Our team also created the design. All the designs on the robot was someone's idea that we put into reality.

We watched the video explaining the challenge at kickoff and could already tell how difficult it will be. After brainstorming we discussed a few ideas deciding on one that would work well for us.

Team Strategy

Our team strategy consists of many thoughts and discussions.

We had discussed some ways to get money as we spent the budget on the first ftc trip.

By sliding the pixels up the import and into a bucket we don't have to worry about lining up a claw to pick it up. With a bucket we can easily carry the pixels without them falling out as we have a cover that automatically closes when in the air until we press a certain button to open it. **ADD** Judges also use the Teams engineering portfolio to evaluate details of the control elements. To help guide this effort, Teams should provide pointers to where in the engineering portfolio control related information is located.

Austin



8th grade

Fabricator/Driver

Class of 2028

Interests: likes sports

Reason joined: for college reasons

Shaun



7th grade

Fabricator/Driver

Class of 2029

Interests: likes sports

Reason joined: enjoys robotics

Max

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7th grade

Fabricator/Coder

Class of 2029

Interests: Reading

Reason joined: Enjoys coding



Zenya



7th grade

Photographer/marketer/scout

Class of 2029

Interests: Science

Reason joined:
Wanted to be
photographer

Alexis



8th grade

Photographer/Coder/marketer/
scout

Class of 2028

Interests: Biking

Reason: wanted to be
photographer and wanted to
join some extracurriculars

James



8th grade

Fabricator/driver

Class of 2028

Interests: cooking

Reason joined:

Enjoys robotics

Ryan



7th grade

Fabricator

Class of 2029

Interests: Video

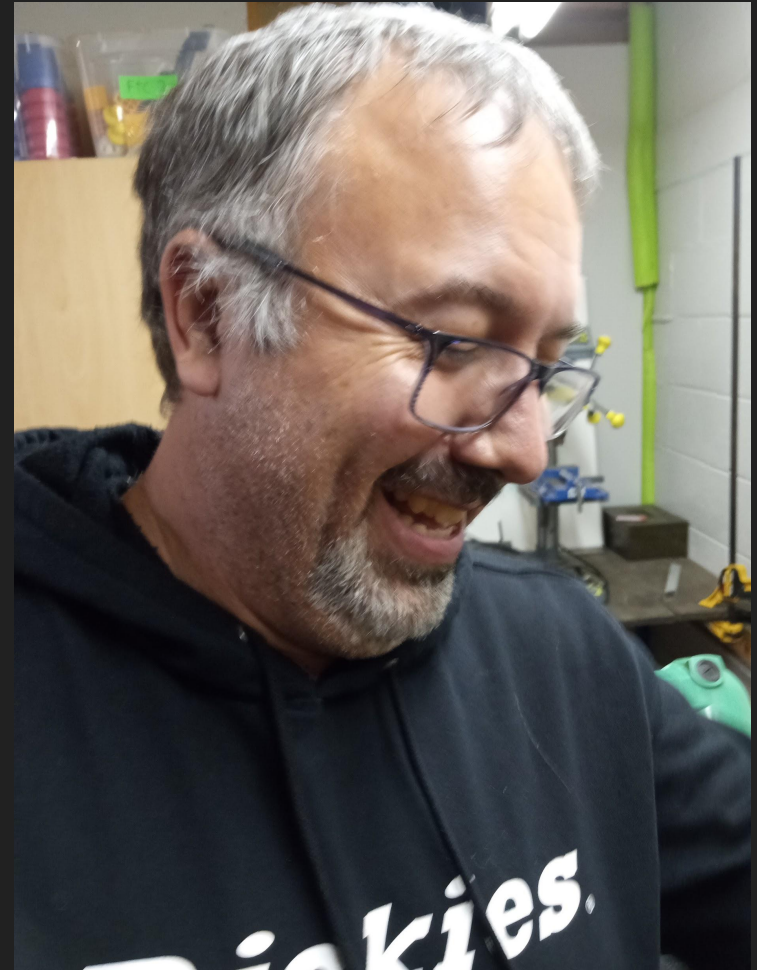
Games

Reason joined: Enjoys

Robotics

Mentor Brian

Brian is the coach that taught most building and did a great job at giving help and advice. He is one of the main mentors, he is kind and smart.



Mentor Eric

Eric is the coach that taught coding and did a great job at giving help and advice. He always has a smile and knows how to make the whole team laugh. He is one of the main mentors and

