RoboMinions 2.0  
  
  
  
  
  
  
  
Engineering Notebook  
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All About our Team  
Ram Vedula, Coach-  
Hello, my name is Ramgopal Vedula. I am a technology enthusiast and have been working for John Deere from past 14 years. I started FTC team 11142 this year in order to inspiring the next generations of girls and boys to become interested in STEM as future career. By the end of our season I hope the students learn aspects of Programming and Design. I have been volunteering for First programs for last seven years and have participated in all roles in FLL and FTC competitions. During 2014-15 season I founded and Coached the Robo Minions FLL team, who later went on to win the Regional Champion Award and participate in the State Competition.   
In my free time I enjoy maintaining my garden and watching sports. I am a Cricket enthusiast and daily follow the games going around the world. Throughout the year I volunteer for Friends of India, Quad Cities, and QC Hindu temple.  
  
Radhika Kasichainula, Coach-  
I work for John Deere as a project manager in IT. I am a mechanical engineer by education and got my graduate degree from University of Iowa (Go Hawks!). Before coming to the US., I studied industrial production engineering. Although, I stumbled into engineering, I found it be a very interesting field and an excellent academic path that gave me a lot of career opportunities with learning and having fun.   
I am also the proud mother of two girls who keep me busy and challenged. In my free time I enjoy watching movies, reading books, traveling, volunteering and spending time with family and friends. Volunteering for STEM and USFirst as a coach is something that I took up 3 years ago and I have been lucky to work with kids on Jr. FLL, FLL and now FTC.   
  
  
Sumukh Bahulekar, Robot Design Mentor-  
I like to solve problems. I am Mechanical engineer by education and profession. I work at John Deere as quality engineering supervisor and I am proud to be part of this great organization. My past experience is in mechanical design, project management and teaching. I also enjoy sports and specially enjoy playing cricket and table tennis. I am excited to be part of this team as I learn a lot during the process of building robot.  
  
Srilatha Challa, Programming Mentor-  
  
Max Broussalian-   
My name is Max Broussalian, I am 13 years old. I was born in Atlanta, Georgia then I moved to Switzerland followed by Seattle then to Nice, France and now in Iowa as an 8th grader in Pleasant Valley Junior High. School has been different for me, I am bilingual and meeting new people has always been a struggle. To adapt, I would play video games, minecraft and other strategy games. When I was about nine years old I thought to myself wouldn’t it be cool if I could be a computer designer / engineer, so being me I started to go on youtube 3 to 4 times a week and I would look up “How to \_\_\_\_” whether it was “How to make a game.” Or “How to code.” I would always be fascinated whatever it was. However each time I looked something up it always went wrong, the program or the video, or even a lack of tutorials; I was not done I really wanted to follow this passion so I took online courses about java, once I was done with one of them I would go to another and another and another but each time I felt like I wasn’t improving. When we moved back to America, I heard about “Robotics.” This was all very new to me, my mom explained it to me “It is a computer class sorta thing, you should give it a try.” So I tried, I was put on a waitlist for 2 years at PV Elementary. Finally, in 6th grade, I was cleared to try a semester. It was very fun I liked it but there was one thing about it that kept bugging me everyday, I thought it was too simple almost like a second grader could do what we were doing, until I heard of FTC Robotics. There was no real way of getting into that kind of club I thought to myself, So I waited about 2 more years, and in the middle of Summer it was brought up by a friend of mine (Kyle Sehlin) that I should join his robotics team FTC 11142 “The Robo Minions”, so with a bit of work I was in, and that's just a little about to where I am today. I also play Saxophone and keyboard. I usually compose my own songs. In the future I would like to have a computer programming or NSA job as a career. I plan to attend the Def Con Hacking conference in Vegas next Summer with my dad.  
  
  
Tarun Vedula-   
My name is Tarun Vedula and I’m 12 years old. I'm in seventh grade and attend Pleasant Valley Junior High. Some of my hobbies include playing the piano and practicing the oboe. I also like to play outside and go biking. When I grow up I want to be a aeronautical engineer at NASA. I think FTC will help me by teaching me how to communicate better. I have done FLL for 2 years and this is my first year of FTC. I joined FTC so that I improve my public speaking skills. I like to do robotics because it gives me a chance to work with my friends and have fun while learning things at the same time. My main focus in FTC is Outreach but I would also like to learn some stuff about programming.  
  
Vishnu Challa-  
My name is Vishnu Challa and I am 12 years. I am a 7th grader at Pleasant Valley Junior High. I have always loved FIRST. I have participated in FLL for 2 years and this is my 1st year in FTC.  
The thing that is most exciting to me in FTC is Design and Programming, especially Programming.This because I want to be a computer engineer and Programming is a really big thing in that career.  
Things I like to do outside of FTC is play Minecraft. I also like to play outside of my house with my friends. Another I like to, that is relevant to Programming, is that me and my mom do python classes together, she's a software architect.  
  
Owen DeVore-   
I am Owen DeVore, I am 12 years old. I lives in davenport until I was 5 and then I moved to Bettendorf I am currently in 7th grade at Pleasant Valley Junior High. I want to become an engineer as my job. I enjoy reading and solving rubik's cubes. since I've always been interested in robots I thought I'd try FLL in 6th grade and I enjoyed it so I decided to step up and do FTC. Ezra's family found out about this team and asked if I wanted to join with Ezra.  
  
Ezra Lauritzson-  
My name is Ezra Lauritzson. I'm in 7th grade at pleasant valley junior high. My hobbies consist of cubing, robotics, cello, Legos, karate, eating, games, and reading. (Reading is an extreme sport. I fell off my bed and had to get staples in my head. Ouch!) I don't have any FLL experience but I have had a lot of other robotics experience. I've done mindstorms at the library, at the summer camp, the after school robotics club in 6th grade (basic and advanced), and at my friend's house. I also read "Jin Sato's Lego Book of Mindstorms" which had a lot of info on C programming. I am on the design team for this FTC season and if I learn java by next season I want to be on the programming team. I also want to do FRC in high school and eventually get a job in robotics that I love.   
  
  
Uma Kasichainula-   
My name is Uma Kasichainula. I’m in 8th grade, and I’m 13 years old. I play the violin, and I participate in the Quad City Youth Philharmonic Orchestra. I also take classical dance lessons. My favorite subject in school is science, and I hope to become a doctor. This is my first time doing FTC. I’ve done FLL for two seasons, once on the Hopewell Pancakes, and once on the Robo Minions. Since I hope to get a career in a STEM-based area, I believe FTC will help me to do this. I’m very excited to start the FTC season.  
  
  
  
  
  
  
  
  
  
  
  
Preseason Notebook  
  
  
  
  
  
  
  
  
  
  
Meeting #2- 6/24/16  
Attendees - Vishnu, Uma, Tarun, Kyle Absent - Vinay, Jake  
Guests - Ramya Banda (Winter Soldiers/Team #8813)  
--------------------------------------------------------------------------------------------  
Ramya Banda gives an overview of following:   
 Overview of FTC  
 Engineering Notebook  
 Business Plan  
 Outreach Activities  
 Fundraising  
 Robot Design/Programming  
Team Details:  
 Team Registration has been completed  
 Team #11142  
 Team Name = Robo Minions  
 Team Communication Discussion  
Vinay creates a temporary schedule before meeting  
Created a timeline of what to complete before school starts  
Fundraising:  
 Where to start our fundraising  
 Goal for fundraising is $1,500 before August 23 (when school starts  
  
Tasks:  
Team Name Changes (If any)  
Communication (GroupMe, WhatsApp, Twitter, etc.)   
Schedule (Already created, everyone needs to update)   
Individual-Bios(Due July 1)  
Order FTC parts online  
  
Next Week:  
 Budget Discussion and Fundraising Ideas  
 Outreach Activities  
 Templates for Business Plan and Engineering Notebook  
 Team Member Roles  
  
  
Meeting #3- 7/10/16  
Attendees - Vishnu, Uma, Tarun, Kyle, Vinay, Ezra, Owen Absent - Jake  
--------------------------------------------------------------------------------------------  
Two new people join the team( Ezra and Owen)  
This is Ezra’s first time participating in FIRST activities  
Owen has had previous experience with FLL in a neighborhood team  
The coach, Ram, gives both new members a brief intro to FTC  
Tarun, Kyle, Uma, Vinay, and Vishnu all discuss the tasks from last meeting  
Team discussed on communication among team members. (Apps vs Email).  
We decided to use Google hangout to communicate as everyone has email and some people do not have cell phones.  
Vinay created a calendar schedule and everyone updated their schedule for summer.  
  
  
The team discuss about Funds and how to do fund raising.   
We set a goal to raise $1500.  
Brainstormed ideas on how to raise $1500.  
Where all of our money will go:  
$1,488 grant from John Deere  
We spent $1,364  
$580- Tetrix kit  
$316- Electronics set  
$318- Control set  
$275- Registration  
We have $124 left  
Tasks:  
Finish Bios by next meeting  
Schedule (Already created, everyone needs to update): Vinay  
Individual-Bios : Format for the Bio’s is provided on Hangouts  
 Next Week:  
 Budget Discussion and Fundraising Ideas  
 Outreach Activities  
 Templates for Business Plan and Engineering Notebook  
 Team Member Roles  
  
Meeting #4- 7/13/16  
Attendance   
Vishnu Uma Tarun Kyle Ezra Owen Nikhil Jake Vinay Max  
--------------------------------------------------------------------------------------------  
Schedule:  
Max Broussalian comes to the team  
● Has previous experience with coding  
● Originally was going to do FLL  
  
Nikhil Ramaraju also joined the team  
● Going into 6th grade  
  
Budget Discussion and Fundraising Ideas  
Outreach Activities  
Templates for Business Plan and Engineering Notebook  
Team Member Roles  
●   
  
Visiting Expert:  
We had Mr. Sumukh come and teach us about Robot Design and Programming  
● Discussed Components and Sub-Assembly for FTC Robot  
○ Used the FTC Robot of Team #8813 Winter Soldiers  
● Learned some Engineering Vocabulary  
○ Gear, Rope, Tube, Plate, Channel, Angle, Bracket, Spacer, Standoff, Axle, Bolts, Nyloc Nuts, Washers, Motors, Wire-Harness, Pulley, Lexan  
● Discussed the importance of Creo Parametric  
  
Tasks:  
Continue working on the bio  
Continue updating TeamUp Calendar  
Come up with two questions for Sumukh  
  
  
  
Building the  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
Robot!  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
Building the robot for your team is the hardest fun you will ever have. It's very accomplishing when you see what you've built driving around. The actual CAD designing on creo is very challenging yet rewarding. Some of the design though we don't use the computer for. The building though is pretty fun, and probably the best part of designing. Sometime it's hard to get screws in the right place you always figure it out eventually. I can't wait to see what it looks like at the end of the season!  
  
  
  
Meeting #12- 7/31/16  
Attendance   
 Uma Ezra Nikhil Vinay Max  
--------------------------------------------------------------------------------------------  
Schedule:  
● Sponsor letter edits  
  
Nikhil Ramaraju also joined the team  
● Going into 6th grade  
  
Budget Discussion and Fundraising Ideas  
Outreach Activities  
Templates for Business Plan and Engineering Notebook  
Team Member Roles  
●   
  
Visiting Expert:  
We had Mr. Sumukh come and teach us about Robot Design and Programming  
● Discussed Components and Sub-Assembly for FTC Robot  
○ Used the FTC Robot of Team #8813 Winter Soldiers  
● Learned some Engineering Vocabulary  
○ Gear, Rope, Tube, Plate, Channel, Angle, Bracket, Spacer, Standoff, Axle, Bolts, Nyloc Nuts, Washers, Motors, Wire-Harness, Pulley, Lexan  
● Discussed the importance of Creo Parametric  
  
Tasks:  
Continue working on the bio  
Continue updating TeamUp Calendar  
Come up with two questions for Sumukh  
  
  
  
  
  
  
Meeting #13- 8/4/16  
Attendance   
Vishnu Uma Tarun Ezra Jake Vinay   
--------------------------------------------------------------------------------------------  
Schedule:  
- We are continuing to work on our chassis design. Sumukh is helping us build our robot.   
- Finalizing sponsorship letter  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
Meeting #14-8/6/16  
Attendees: Max, Kyle, Jake, Owen, Ezra, Uma, Vinay, Vishnu  
Absent: Tarun, Nikhil  
  
Schedule  
Learned about the basics of Java and Android Programming from Vishnu’s Mom  
- Java works on any operating system  
- In order to be able to program our robot, we need to download the Java Development Kit and the Integrated Development Environment Android Studio.  
- The two Android phones require a Wi-Fi Direct Connection  
- Will need to name phones  
- One phone will need FTC Robot Controller, and the other will require FTC Driver Station  
- Definitions  
- Class- The entire set of code  
- String- A line in double quotes (“....”)  
- Method  
- Command- A request given to a computer to complete a task  
  
  
  
Tasks  
● Download JDK and Android Studio  
  
  
  
  
  
Meeting #15 8/7/16  
Attendees: Nikhil, Vishnu, Vinay, Kyle, Max, Ezra, Owen, Uma  
Absent: Tarun, Jake  
  
Schedule:  
● Ms. Challa taught us how to create a new program for an app. Here are the steps:  
○ Create a new project in Android Studio  
○ Select Empty Activity in the options  
○ Choose Phone and Tablet in the option menu   
○ Finally, choose Finish in the bottom right corner  
● Max and Nikhil deployed the app in the Android Phones  
● We learned how to fix issues that may pop up during programming   
  
  
Meeting #16- 7/31/16  
Attendance   
Uma Ezra Nikhil Owen Max Jake  
--------------------------------------------------------------------------------------------  
Schedule:  
● Sponsor letter edits  
  
● Continuing on building the robot  
● Working on  
   
Budget Discussion and Fundraising Ideas  
Outreach Activities  
Templates for Business Plan and Engineering Notebook  
Team Member Roles  
  
   
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
Meeting #17- 8/15/16  
Attendance   
Uma Ezra Max Jake Nikhil Vishnu  
  
Schedule  
● Max is testing his program on Android  
● Sponsorship packet sent  
  
  
  
  
  
  
  
Photos from the Preseason  
  
  
  
  
  
  
  
  
  
  
  
  
  
   
  
  
  
  
  
  
2016-2017 Season Notebook  
  
  
  
  
  
  
Engineering Notebook Format  
We’ve decided to electronically record our engineering notebook entries at ftcengineering.org  
  
We’ve also decided that each of the divisions (Design, Programming, and Outreach) will have a separate section in the notebook.  
We’ve decided that we’re placing our season’s photos in a GoogleDoc and we will use ftcengineering.org to record our entries about meetings.