

KICK OFF DAY: Saturday, January 5, 2013

Today we went to the kickoff in Denver. The first workshop, Gates, was really helpful for understanding abilities. Whether we will use the belts is doubtful. For our second workshop we went to PTC. Then, we were able to get our Kit Of Parts early and get back for our strategy meeting.

Strategy:

We broke up into groups to brainstorm.

Offensive

- 1) Sniper (Sharpshooter)
- 2) Dumper
- 3) Climber

The sniper had a very high potential but was easily defended against. The dumper would be low-scoring and reliable. The climber will stand out and score 50 points (30+20 from colored frisbees being scored in the pyramid scoring zone).

Then, we read rules and looked up potential ideas (Nerf Vortex, Vex Roundup).

Week 1: Monday January 7, 2013

Build Team:

The build team split up into smaller groups of 3-5 to further discuss methods of climbing up the pyramid. After planning out a few designs and drawing out some of them everybody joined back up and decided to build models of three designs. One modeled after a monorail, one with a latching conveyor-belt, and one "geco" claw system. It is still undecided as to which one will be the best idea but the monorail looks the most promising. A few members kept up on building the drive chasis and we have the whole frame completed and are now building up the gearboxes and the motors. Blake reflected with his statement "As a team we have not done anything that could succeed or fail but it had been a productive day as far as future designs are considered." Tomorrow, the build team wants to plan out the final climbing mechanism and maybe even start building it on CAD. Also they plan on starting work for the BOM for the pyramid construction. This will take a lot of communication between the CAD team and the build team. Will found out that after testing the CIM motor gearboxes, the robot will be able to fly at a pace of 9 feet per second.

Programming Team:

The programming team has been finishing different concepts of coding. Tomorrow they plan on deciding whether to use Java or C++ language. Drew stated that "the fridge was filled with various colors of drinks but the pink grapefruit was the most interesting so I decided to choose it as my choice of beverage." He also reflected on the day with "there were many boxes of them, a wonderful assortment of wooden sticks," when he was referring to the popsicle stick model creations.

CAD Team:

Michael and Jacob Frye created a CAD model of the KOP robot base. We have decided to go with the wide model because the day before we decided to use mecanum wheels and the wide drive system will work better with the mecanum wheels since it is more square. Jacob reflected on the day with his statement, "anything is possible to create on the CAD software you just have to keep trying." Tomorrow the team plans on expanding the CAD model of the robot's drive base. This will become an extensive project that will take a few more days to complete since we are using the mecanum wheels in our drive chasis. Hopefully we will be able to complete this by the end of the week as scheduled.

Administrative & Logistics Team:

The team researched and learned extensively on how to resize and upload photos taken from the camera onto the website. Also, the team re-uploaded the Safety Animation Video to youtube and fixed up the website.

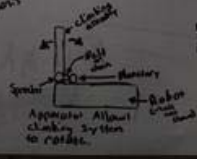
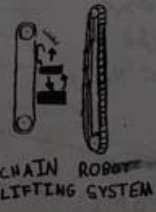
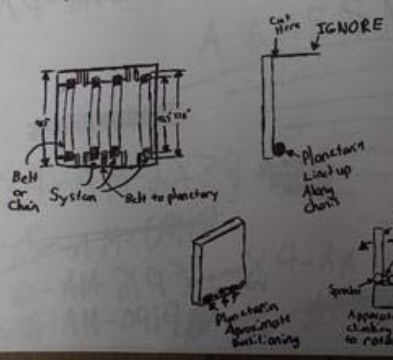
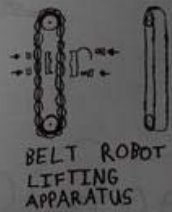
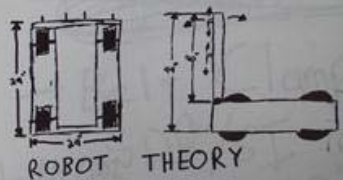
Drive/Rules Team:

Studied the rules more extensively. Some of us played with the FRC game simulator to help analyse the game and strategies.

Safety Team:

Announced a few precautions to take while working for the whole team.

THE IMMORTAL



Matt C. Alca F.

Week 1: Tuesday January 8, 2013

Build Team:

Today the build team worked on creating the BOM for the pyramid construction to commence. Will states "The pyramid takes forever to make, but building the metal pyramid will allow us to test our climber." Tomorrow the team will finish creating the BOM and continue to finish up building the drive base.

Programming Team:

The programming team was unable to do much work since they didn't have the CD's for downloading C++ with them. Drew was able to download the rest of the programs in order to program in Java. He finds the coding software very... concerning since we are unfamiliar to program sensors. Drew stated that "Remember folks, every day you need to practice like it's the real game, but when you're in the real game, play it like you're in practice." And tomorrow I am going to do some other things to help the overall cause." They plan on downloading C++ and deciding on which coding software to use tomorrow.

CAD Team:

Today, the CAD team worked on assembling the motor and connecting the motor to the gearbox in CAD. Along with that, we we put the bearing and output shaft in both of the drive train motors on CAD. This will set us up to finally create the drive train in CAD. Tomorrow, the team plans on finishing the drive train and start putting in the mecanum wheels.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Continuing to study the game rules.

Safety Team:

Enforced the safety procedures needed to be taken to ensure safety of all persons and equipment.

Week 1: Thursday, January 10, 2013

Build Team:

The build team got the mecanum wheel drive system in today. They started on installing it on the robot and many problems arose with this. There was some more difficulty with the gear boxes and some of the parts had to be modified to fit correctly into the drive base. At the very start of the practice, a gear got stuck on the CIM motor with the keyhole out of line. Luckily, we used a gear remover (who knew there was such a thing) and removed the gear. Then, we placed the keyhole in line to cut the spacers for the outside of the mecanum wheels on the lathe because a pipe cutter was going to bend the brass spacers. The inside spacers are almost finished they just need to be parted from the steel rod that we bored a 3/8" hole in. Tommorrow the team plans on finishing up the mecanum wheel drive base and starting on finalizing plans on a mechanism for climbing the pyramid.

Programming Team:

Not much was done today by the programming team. They set up the FRC laptop so that we could image the CREO. They found that the FRC_2013_v46.zip doesn't exist. They instead used the FRC_2012_v43.zip which worked and they flashed the CREO.

CAD Team:

Today the CAD team put two of the mecanum wheels onto the CAD robot drive base. The team encountered some troubleshooting problems with the software but they were able to overcome this challenge with slight difficulty. They were also taught by Skyler on how to turn the CREO files into a JPG file so that they could be added to the engineering notebook. Tommorrow they plan on finishing the drive train.



Geo Parametric - Advanced Rendering Extension

Administrative & Logistics Team:

Some edits to the website. The website has been updated with a calendar on the schedule of the team members and who can make what days.

Drive/Rules Team:

The team made sure to go over the rules and start reviewing the game and how it is going to be played.

Safety Team:

Safety precautions enforced.

Week 1: Friday, January 11, 2013

Build Team:

A few of the build team members worked on ideas for a corner climber robot. They came up with some of the parts necessary to create such a device. Prototyping of such a mechanism has begun. Tomorrow the build team will finish the mecanum drive base and will begin on building the prototypes.

Programming Team:

Nothing done today.

CAD Team:

Mostly the CAD team just helped the build team to come with up new prototypes.

Administrative & Logistics Team:

Started adding content to the website. Today they began with creating profiles on each of the members and added them to the website.

Drive/Rules Team:

Nothing done today.

Safety Team:

Nothing done today.

Week 1: Saturday, January 12, 2013

Build Team:

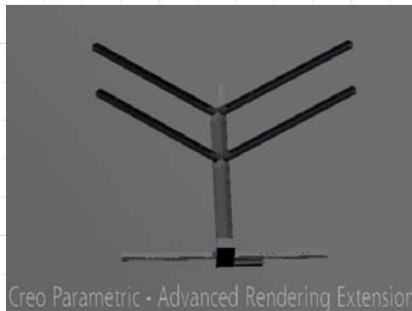
Constructing the drive base. Continuing to prototype the climbing design and going over what parts will be needed to create the climbing mechanism.

Programming Team:

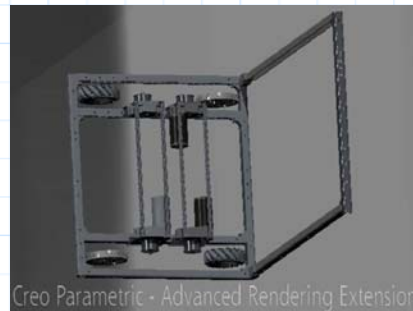
Well, today the programming team learned how difficult it is to connect to the robot. The team installed Java and C++ and worked with the two. C++ isn't working correctly. It doesn't seem to want to connect to the robot. Labview took around 6 hours to install on the black laptop and despite the teams best efforts, they couldn't get the software to work right. Even though most things went wrong today with programming the team learned a lot of valuable lessons.

CAD Team:

Starting prototyping the climbing mechanism and construct the pyramid CAD. The team finished the CAD of the corner climber idea. Then, the CAD team started to build the side climber design on CAD. The team had some trouble moving components on Creo.



Pyramid Pneumatic Climber



Pyramid Side Climber

Administrative & Logistics Team:

Continued to work on creating bio's on each of the team members. Started to take pictures of the members for the website.

Drive/Rules Team:

Nothing done today

Safety Team:

Ensured safety precautions taken.

Week 2: Monday, January 14, 2013

We are officially behind on our schedule that we created at the start of the build season. The team did a lot of heavy lifting to bring in scrap metal to build our robot with.

Build Team:

Today the build team worked on completing a prices list and parts list of the side climber robot idea. The total price came out to be about \$470, which is very similar to the pricing of the corner climber idea. This makes it harder to make a choice between the two robot climbing ideas. Also worked on finishing the robot drive system.

Programming Team:

The team finished the circuitry for the robot and then wrote the early stage of the mecanum drive code.

CAD Team:

Worked on the side climber arm. The team added 4 pully's to the top of the arm and motors at the bottom. Images of the pyramid side climber desing are found at the bottom of this entry.

Administrative & Logistics Team:

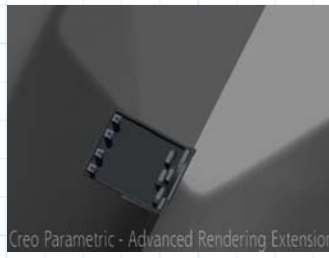
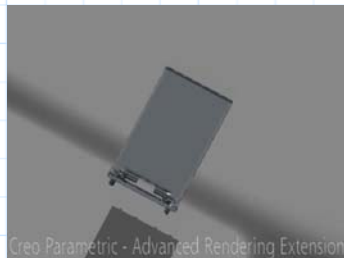
Continued work on the team member bio's has been done and all of them are almost finished and updated onto the website.

Drive/Rules Team:

Nothing done today.

Safety Team:

Followed through with safety precautions. Andre had to stop the workshop at one point due to a visitor entering the area but soon after we resumed work.



Week 2: Tuesday, January 15, 2013

A few of the team members went to the garage today and took up about an hour to mop up the garage and clean it out a little bit so that we could roll out the carpet on it and start to drive the robot on it.

Build Team:

On the build team, Naathan worked on creating the equations for the pistons needed to climb the pyramid with MathCAD.

Here is his analysis collected:

$$\begin{aligned}24 \pi \cdot 3 &= 226.195 \\12 \pi \cdot 3 &= 113.097 \\113.097 + 226.195 &= 339.292\end{aligned}$$

3 is the number of times the piston moves and pi is the area of the piston while we have 2 different lengths of pistons 24 square in and 12 in. this is the amount of air needed to fill the air tanks in cubic inches

A few of the others worked on cutting and grinding parts to build the pyramid. Blake learned how to use the vertical bandsaw today. It seems like the pyramid construction is coming along nicely.

Programming Team:

The programming team finished coding the mecanum drive system and tested two different alternate control systems. They adjusted the mecanum drive code so that it is ready for the competition robot. We finally got the robot up and running and drove it around a little bit!!! The programming team did this using Java.

The final code is:

```
public class RobotTemplate extends IterativeRobot {
    Joystick joy1 = new Joystick(1);
    Joystick joy2 = new Joystick(2);
    RobotDrive drive = new RobotDrive(1,2,4,3);
    public void robotInit() {
        drive.setInvertedMotor(RobotDrive.MotorType.kFrontRight, true);
        drive.setInvertedMotor(RobotDrive.MotorType.kRearRight, true);
    }
    public void autonomousPeriodic() {
        drive.setLeftRightMotorOutputs(0.1, 0.1);
    }
    public void teleopPeriodic() {
        System.out.println("Joystick: (" + joy1.getX() + ", " + joy1.getY() + ", "
            + joy2.getX() + ")");
        if (joy1.getButton(Joystick.ButtonType.kTrigger)) {
            System.out.println("trigger");
        }
    }
}
```

```
    if(!joy1.getRawButton(7)||joy1.getRawButton(6)) {  
        drive.mecanumDrive_Cartesian(joy1.getX(), joy1.getY(), joy2.getX(),  
0);  
    }  
    else if(joy1.getRawButton(6)){  
        drive.mecanumDrive_Cartesian(1, 0, 0, 0);  
    }  
    else if(joy1.getRawButton(7)) {  
        drive.mecanumDrive_Cartesian(-1, 0, 0, 0);  
    }  
    }  
    else  
    {  
        drive.mecanumDrive_Cartesian(0,0,0,0);  
    }  
    }  
}
```

CAD Team:

Today the CAD team worked on making the side climber CAD portrayal more accurate to what it will really look like. Here is an image of the pyramid side climber CAD work in progress:

Administrative & Logistics Team:

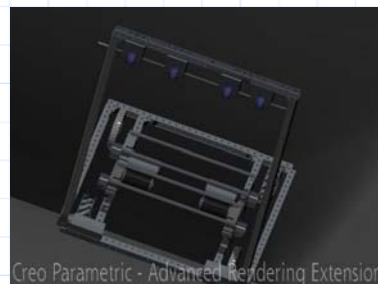
Nothing done today.

Drive/Rules Team:

Got to practice driving the robot a little bit. Skyler thought that the twist axes one control joystick was easier to drive with. Some of the others thought differently...

Safety Team:

Ensured safety precautions are taken.



Week 2: Wednesday, January 16, 2013

Build Team:

The team ordered parts for the second robot. Brainstormed an idea for the frisbee dumper attachment that will be going on the back of the robot. We are planning on using the corner climber due to the flaw that Tony and Andre pointed out with the side climber. Most of everything on the market is sold out so Naathan's dad suggested going to the Black Market. A very good idea indeed. I like the way of his thinking but it seems under the circumstances we cannot buy from the Black Market since the competition won't allow for illegal marketing. It was still a good suggestion.

Programming Team:

Started testing on devices like the gyrosensor and some other devices.

CAD Team:

Finished the CAD model of the side climber robot. Providing the finishing touches to the corner climber robot although the parts have been planned and the basic is completed.

Administrative & Logistics Team:

Worked on the chairman's award today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Continued ongoing safety procedures.

Week 2: Thursday, January 17, 2013

Build Team:

The build team worked on building the bumpers for the robot and then started working on cutting out parts for the pyramid. A lot of grinding was done on metal parts because the black substance coating the metal pipes used for the pyramid had to be grinded off before we could weld them together.

Programming Team:

Today Drew got adjusted back into the WPI Library Programming that FRC requires you to do. Drew got numbers from the gyroscope and completed them with success and learned how to fix many bugs that he will encounter further up the line. Next time Drew is going to try and get the accelerometer running correctly.

CAD Team:

The CAD team made the robot 4 inches shorter to solve one of the major flaws with the side climber and started putting then helped the build team put the bumpers on the robot.

Administrative & Logistics Team:

Worked on the website and updated the layout of the website to a more welcoming appearance. The website itself is coming out to have a very professional appearance.

Drive/Rules Team:

Nothing done today.

Safety Team:

Enforced safety.

Today we had some special guests pay a visit. Marcus and Kevin who are now in college and are both former Poudre FRC team members. They were both also captain of their robotics team at one point. They helped out as mentors and gave us a lot of tips to success.



Week 2: Friday, January 18, 2013

Build Team:

Built the parts for the pyramid and have gotten a great deal of work done on the construction of the pyramid. We are up to the second level.

Programming Team:

Today, the programming team made some code to read the accelerometer and it didn't read anything good. Nothing worked on fixing the accelerometer and getting it to work, so the programming team decided to trash the idea of using the accelerometer till another time.

CAD Team:

Today the CAD team realized that the CAD creations were incorrect and therefore they had to restart the CAD designs from scratch. With there new skills, they developed a superior new base. They ended the day with a base built and some planetary motors mounted onto the base.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

The drive team got to drive the robot around in the garage a little bit today.

Safety Team:

Ensured safety protocol.



Here is a few members of the team gathered around the robot as we drive it around and test it.

Week 2: Saturday, January 19, 2013

Build Team:

The build team worked on the bumpers and the pyramid base. The robot now has finished bumpers. We had a big problem with getting noodles that are the right size and is legal. We made do with what we had to produce bumpers that would work for now until we got the right sized noodles.

Programming Team:

Nothing really done today.

CAD Team:

Today the CAD team worked on the CAD design for the robot. First, they finished the design for the rotational motion part of the corner climber. Then they worked on finding the right pieces for the pneumatic support system for the rest of the day.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety taken. The safety team members got together today to discuss ways of keeping a safe environment while working in the shop. Things like glasses must be worn whenever work is being done. We have gotten a leather welding aprong that should always be worn when welding to provide protection.

Week 3: Monday, January 21, 2013

Build Team:

Began fabricating parts for the corner climber including a part that would fit into a sprocket to a planetary motor with a smaller shaft motor.

Programming Team:

Nothing really done today other than review the code for the mecanum drive and make sure everything is working together and finalized.

CAD Team:

Worked on the corner climber CAD design

Administrative & Logistics Team:

Worked with the Fossil Ridge High School robotics team (Ridgebotics) to start scheduling the scrimmage that will be held against each other soon. The team really looks forward to this scrimmage with Ridgebotics.

Drive/Rules Team:

Today the team was able to drive the robot some and test its handling.

Safety Team:

Ensured safety precautions taken while working.

Week 3: Tuesday, January 22, 2013

Build Team:

Lathed the new holes in the sprockets for the planetary motors. The small sprocket being built will allow the robot to lift itself up.

Programming Team:

Nothing done today.

CAD Team:

Worked on the CAD design of the corner climber.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety protocol.

Week 3: Wednesday, January 23, 2013

Build Team:

Worked on making the parts for the corner climber. Will was unsuccessful in making a sleeve for the bearing we bought which where the wrong size. Will was only able to finish one sleeve. The drive chasse of the second robot is being built and coming along nicely.

Programming Team:

Nothing done today.

CAD Team:

Worked on the CAD of the corner climber.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety measures taken.



Here is the bearing and motor mount



Here is the team building the second robot's drive chasse.

Week 3: Thursday, January 24, 2013

Build Team:

Finished the sleeves for the bearings. Then worked on the T2 Robot and helped with getting the camera up and running. Started work on the BOM.

Programming Team:

Worked on getting the camera to work and finalized on it.

CAD Team:

Worked on the corner climber CAD.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Performed safety protocol.



The side climber is coming along nicely

Week 3: Friday, January 25, 2013

Build Team:

Continued cutting pieces for the pyramid and building it. A couple members of the build team also helped the programming team place encoders onto the drive motors of the first robot.

Programming Team:

Overviewed all of the code created so far.

CAD Team:

The CAD team restarted the CAD model of the side climber and launched the side climber 2.0 CAD model. Jacob learned that sometimes you need to remodel something if it isn't working right.

Administrative & Logistics Team:

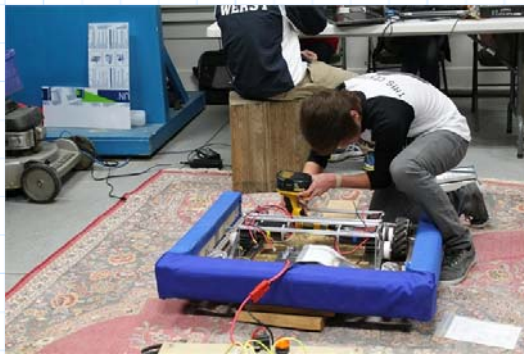
Nothing done today

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety precautions taken.



Encoders being placed on the robot

Week 3: Saturday, January 26, 2013

Build Team:

Alex designed the idea for the spring loaded claws for the climber and the dumper/launcher to score frisbees. The rest of the build team continued building the pyramid. The build team also spent some time creating a prototype of a dumping/shooting robot, that will be able to score both in the low goal as well as in the top of the pyramid. It will be able to hold 6 frisbees, and shoot them out at a velocity of 3 meters per second. The team had multiple failures with the hot glue gun, attaching objects slightly too close for the frisbee to fit, but all of these problems were remedied with the assistance of the heat gun. The build team also spent time building the drive chase for the second robot. This drive chase will be much more prepared for competition because the chase has been built to be strengthened more through the use of more bolts and added support beams going down the middle of the robot.

Programming Team:

Not much done today.

CAD Team:

The CAD team worked on making a model of the base of both the robots in CAD, bug free. They then continued on with creating the side climber. Jacob says "David is amazing at CAD." David says that "Alex Frye and Matt Iverson think that they are world class comedians."

Administrative & Logistics Team:

Continued work on updating the website information on sponsors, etc.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety precautions taken.



Here is the finished pyramid

Week 4: Sunday, January 27, 2013

Build Team:

Worked on prototyping the dumper mechanism. The motorized shooting mechanism is not shooting fast enough. Maybe with a CIMPLE gearbox instead of window motor it will be more effective. Pneumatics may also work. Alex worked on the side climber and him, Blake, and Caelan tried to come up with a solution to a problem with the side climber. Then, they tried to make a model of their idea. Alex stated that "Coming up with solutions is not always easy or straightforward." Drew and Skyler created field replica of the low goal to practice dumping frisbees in once we create a dumper.

Programming Team:

Nothing done today. Broke apart and helped the build teams with construction of side climber and the corner climber.

CAD Team:

Today David worked on more designs for both the side and corner climbers, and after getting feedback from the prototyping teams, he was able to finish more parts of the design for the corner climber primarily. After today we have gotten back on track and we are close to finishing the CAD designs for the robots.

Administrative & Logistics Team:

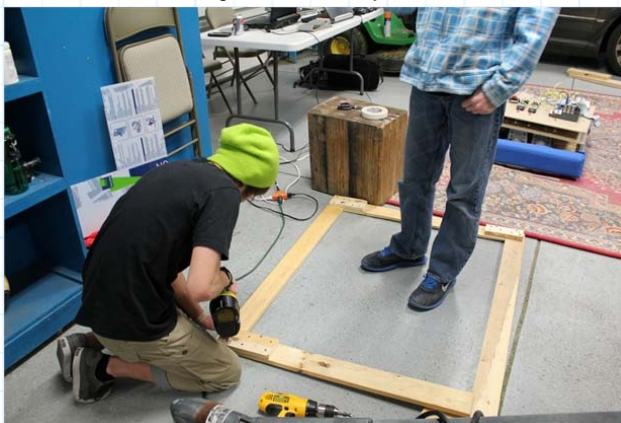
Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Safety protocols were taken today in the shop.



This is a picture of Skyler and Drew building the low goal.

Week 4: Monday, January 28, 2013

Build Team:

Worked on the base mount for the corner climber. Also worked on putting the belts on the drive chase of the second robot and built the base.

Programming Team:

Nothing done today.

CAD Team:

Worked with the build team to create parts and find out their specifications. Also worked on trying to solve other mechanical problems on both robots.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety taken with building the robot.

Week 4: Tuesday, January 29, 2013

Build Team:

Worked on the prototype shooter, the new pneumatics, and the CAD for the climber. Michael assisted in making some crucial parts for the corner climber, tapped some holes for screws to go into, and attached some mounts to the corner climber for the pistons to be held on. Blake remade the base for the robot since the measurements were wrong. He reflects that you should always measure twice cut once.

Programming Team:

Programmed up a test for the pneumatic system of the new robot. Team decided to start working on the final robot code that will be used at the competitions due to the tests coming to an end. It really is just a big compilation of all the little tests put into one project.

CAD Team:

Continued on building the CAD model of the robot. Also helped the build team to build the parts that they needed.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety taken.

Drew's Entry:

Relevant to robotics: Today I programmed up a test for the pneumatics for our new robot and it is ready to be tested once all of the robot mess is cleaned up and there is actually some room for me to work. I started my new short story series "Infiltration of the Space Pirates" today I plan on it being an ongoing project that I will finalize into one book towards the Colorado competition and fix all the grammatical errors. Some of the parents started to build our pit area for the competitions and they are off to a good start. The programming team has also decided to start on making the FINAL robot code that we will be using at the competition due to our tests coming to an end. That has started but we aren't too far with that. It really is just a big compilation of all the little tests put into one project. I walked around to make sure people were actually working and everyone was doing a pretty good job with that.



Blake and Skyler working on the base mount of the second robot.

Week 4: Wednesday, January 30, 2013

Build Team:

Blake spent most of the day working on homework but after that he helped Alex reshape a spring of the corner climber. Will helped out with some of the drive code and the shooter prototype now has fine tuned controls for aligning the robot. Also started work on welding the aluminum frame for the second robot. The side climber couldn't get much work done since the superstructure frame for it isn't finished.

Programming Team:

Continued work on the robot code.

CAD Team:

Continued work on finalizing the pieces for the robot models.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety taken.

Week 4: Thursday, January 31, 2013

Build Team:

Continued essential work on building the climber robot mechanisms. Pistons on the corner climber were attached and pyramid mount grabbers were placed on the pistons. Side climber robot still being made before the side climber can start work.

Programming Team:

Worked on the robot code.

CAD Team:

Finished CAD designs of the robots today. Everything on CAD has been finalized. CAD team now beginning to work on manufacturing the pieces with the build team needed to create the climbers.

Administrative & Logistics Team:

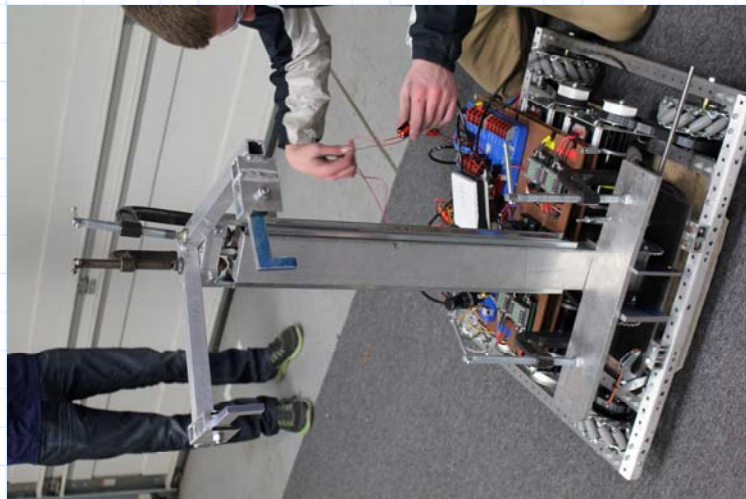
Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Safety ensured.



The Corner Climber

Week 4: Friday, February 1, 2013

Build Team:

Michael tapped holes for the bearing mounts on the side climber and started to create the pulley holders. Mostly everybody on the build team was just busy manufacturing pieces to be put on to the robots and started to synthesize these parts onto the robots. Work is getting done but manufacturing parts takes a lot of time even with the dimensions.

Programming Team:

Finalized the competition robot code.

CAD Team:

Helped the build team manufacture pieces. The CAD team is the most knowledgeable on how the pieces fit together on the robot so they are advising the synthesis of the robot mechanisms.

Administrative & Logistics Team:

Nothing done today.

Drive/Rules Team:

Nothing done today.

Safety Team:

Safety protocol taken.

Week 4: Saturday, February 2, 2013

Build Team:

Kept on manufacturing pieces and synthesizing the robot together. David says he almost broke the mill but luckily Coach Tony fixed it. We are getting the robots very close to finished and hopefully we will have a climbing robot soon.

Programming Team:

Wired up the robots.

CAD Team:

Helped build robots.

Administrative & Logistics Team:

Worked on finalizing things on the website.

Drive/Rules Team:

Nothing done today.

Safety Team:

Ensured safety.

Week 5: February 3-February 10

Build Team:

Manufactured most of the remaining pieces for the side climber. As the rest of the team worked on the piston corner climber they came across many problems. First of all, the pistons aren't long enough to reach the first level. This problem arose because someone didn't check the measurements correctly. We encountered this problem and fixed it but to no avail since another problem arose. The pistons aren't even strong enough to lift up the robot. We should've checked this at the start of building this design when we first got the pistons but we didn't and now we have had to totally scrap the corner climber idea since there is no way of fixing the vast amount of problems that we have encountered with this design. The side climber has come along quite nicely. We are doing work on it and most of it has been completed this week. Jacob and Blake learned to get the measurements on holes right the first time. For some reason they messed up the hole placement of the motor mounts on the side climber and created a disaster of a mess that took a few days to figure out how to fix. Sloppyness will only drag us behind so take the time to do things right the first time. At the end of this week we were successfully able to climb up one level and score a total of 10 points.

Programming Team:

Finished writing up the code. Wiring up the robot. Working on the camera programming abilities.

CAD Team:

Helped the build team.

Administrative & Logistics Team:

Nothing done this week.

Drive/Rules Team:

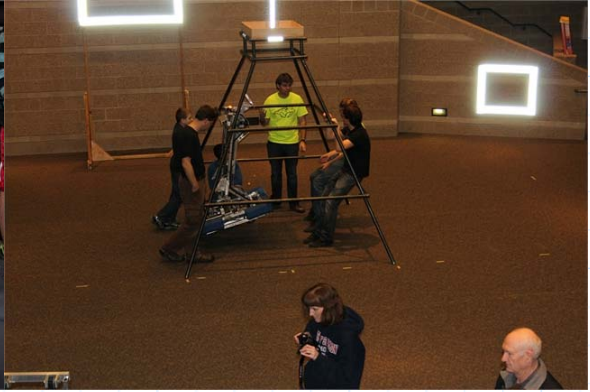
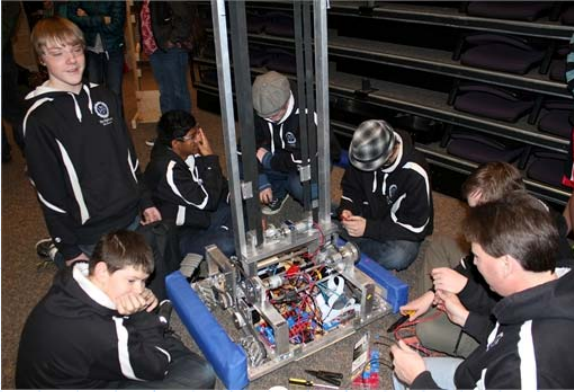
The drive team was able to work on driving the robot a little bit. Practicing driving the robot is going to bring us a lot of success at the tournaments. We don't want to come all this way just to not have an able driver to bring us success where it matters at the tournament. Building a working robot is one thing, but driving it to actually get the points where it matters is just as important and practicing this will be key.

Safety Team:

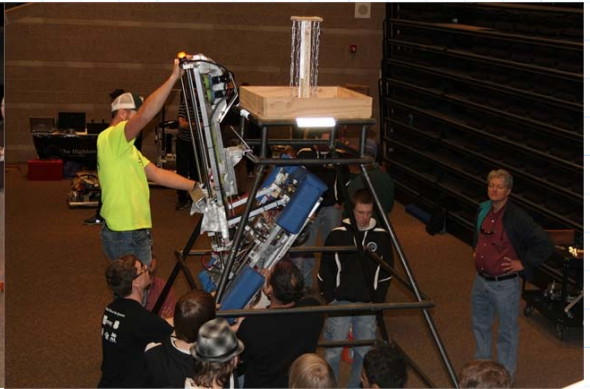
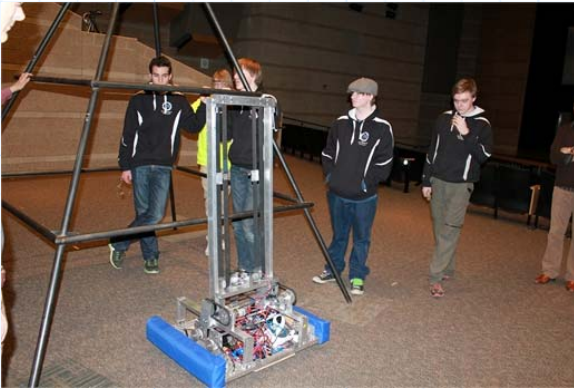
Always ensured safety protocol.

Scrimmage Reflections:

On February 9 we attended a scrimmage at Fossil Ridge High School and competed with Poudre (sort of) and Fossil. Poudre didn't even bring a robot and only a few of them showed up. That is not a very good show of sportsmanship since they said they would show up to compete. Just a few of them showed up and spectated our robots for a little. Probably just there to get ideas. Other than that we took what we learned from the competition and synthesized it into our robot.



Scrimmage got pretty intense with work on the robots.



Week 6/Final Week: February 11-19

Build Team:

Finalized the side climber. Built many spare parts in case of part failure at the competition in Lubbock. The last day we packed up the robot at exactly 11:46. On the last day we succeed at climbing up two levels. It's impossible to get up to the third level with this design because we hang down from the top level and into the second level. We're all happy with what we've got. The final hours of the build season were a huge rush to get everything on the robot finalized and connected. We were unable to get the frisbee launcher hooked up by the end but everything else is working and we can climb.

Programming Team:

Wired up the robot and worked on getting the camera system figured out.

CAD Team:

Helped the build team.

Administrative & Logistics Team:

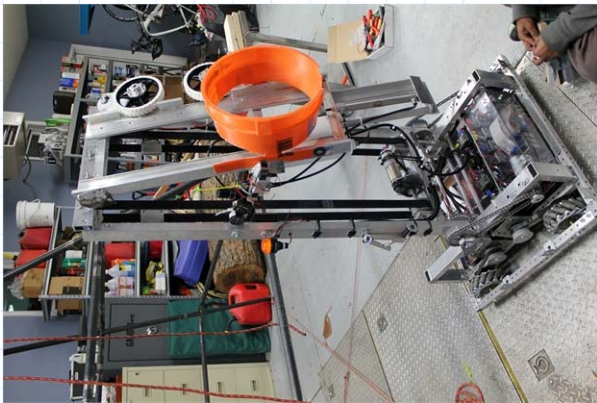
Drew from the programming team and also our team captain completed our financial/business plan. Its around 45 pages long and a hefty task that has been completed. Finalized everything that we'll need for our trip to Lubbock.

Drive/Rules Team:

Got to practice driving on the last day and also climbing. Reviewing the rules for before the competition.

Safety Team:

Ensured safety taken.



Bagged up and ready to go



