**TEAM NAME** : 99484A Kachatics \*yet to be changed\*

**ROBOT NAME** : SCHTYNA (named by Mrs.ChriSCHTYNA Johnson)

**PEOPLE//ROLES:**

* Josiah : Builder//Captain
* Yoshiki : Programmer//Builder//Coach//Floor Captain
* Joseph : Builder//Driver
* Joshua : Programmer
* Meg : CAD//Coach//Floor Captain

**NOTEBOOK HOW TO (delete if they’re bad)**

* <https://www.youtube.com/watch?v=O0El_fts9ns>
* <https://www.youtube.com/watch?v=YJqG15o-aqs>
* <https://www.youtube.com/watch?v=fDrybjC2YYw>

| Game description: elements |  | Ball :  Its diameter is 3 inches and weighs around 55 grams. At the beginning of each matches, 4 balls will be under caps, 8 balls will be on caps, 4 balls will be on the platform, and 4 balls will be preloads.  Their only one reason for existence is to be shot at flags and to toggle them.  Cap :  Its width is 9.2 inches when measured from one flat end to the another, and the height is 4.6 inches. It weighs around 335 grams. It has a 1.8 inches tall and 3.8 inches wide cylinder in the middle of both sides and they have dents in the middle, so they can be hooked up to the low and high poles. One side is colored red and another side is colored blue. The score will go to the alliances with the color on top in matches.  There will be 8 caps during the matches, 4 on red side and 4 on blue side in the beginning. Caps on the floor or the platform of the field (low scored) are worth 1 point, ones hooked on both low and high poles (high scored) are worth 2 points.  The maximum score which can be attained from caps is 14 points  Flag :  7.2 inches width and 6 inches height. There are 9 flags in total, each one have red and blue side, and the alliance with the color of flags toggled more than the half of the pivot point will receive scores. Because of the new expansion limit zone rule, top two flags cannot be touched by robots, therefore they need to be shot by balls to be scored.  The lowest flags are worth 1 point, and top two flags are worth 2 points.  The maximum score which can be attained from flags is 15 points.  Platform :  Its 67.3 inches wide and 23.9 long. Lower platforms are 2.4 inches tall, and the bonus platform is 4.9 inches tall. They are placed at the center of the field, and alliances can gain points by driving on top of the platform with their own team color, or on the bonus platform. Also, to be counted as “scored”, the robot need to be completely away from the floor of the field.  The lower platforms are worth 3 points and bonus platform is worth 6 points. | Yoshiki | Ball  Flag  Cap  Platform  Draw and label game  I feel like each one can be simpler but yea  -yoshiki |
| --- | --- | --- | --- | --- |
| Problem with platform | 11/3 | When Joseph was practicing his drive today, He noticed that our robot wasn’t able to climb up to the platform, so we tried to figure about what the problem was. First, we checked for any friction which could’ve been affecting the performance of the chassis motors. We checked the chains and the shaft connection of the wheels, but there was no excessive friction on any part. Then we checked if the motor powers in the code had changed by our programmer, Joshua. However we still had the same code from last time.  So we decided to test out all the motors for the chassis. First, because our chassis was powered by four motors, all connected by gears to drive the front and back wheels, so we took out the gears in between motors and mechanically separated the front and back wheels. Then we observed each motors by making them move individually.  Then we finally noticed that Joshua mistakenly assigned the wrong port to the motor, and we were just not getting the output from it the whole time.  It’s ok Joshua, the team will forgive you :) <3  ...Joshua, dinner is on you | Yoshiki |  |
| **ROBOT DONE** | | | | |
| Problems with limit switch | 11/19 | During the test driving time today, we faced a problem with the limit switch built under the catapult to manipulate its position. We were able to hear the sound of it clicking, but the catapult did not stop at the position where we wanted its motion to stop. The reaction speed of the switch was very slow and the performance was inconsistent, so we had to find a more stable place where it can also be touched earlier in the shooting process.  The new position for the limit switch is at the bottom of catapult tower. We attached a standoff to the catapult gear, which will press down the switch whenever it is lowered and ready at the perfect position. | Yoshiki |  |