



The Website <https://vrobotsim.com/>

Go to the VRS <https://www.vrobotsim.online/homepage.html>
the VRS world speed record is 123 points and it's done in under 20 seconds
<https://bit.ly/3FI1Pwl> or <https://bit.ly/3BuFK1Y>

How to use the VRS(stop and pause) <https://youtu.be/HvywykxdrBU> (5 minutes) Redstone engine

1. Locating the blocks for programming <https://youtu.be/7PgNPSJnA3Q>
2. How to use basic blocks https://youtu.be/39l5_7c1CYY

Advance programming

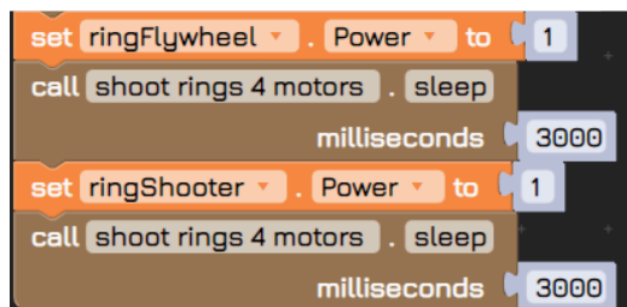
3. How to create "new variable" [click here](#)
4. How to create a new function [click here](#)

Lessons -Advanced

1. Drive to the white line **hint** <https://youtu.be/x7BokrnYRVQ>
2. Driver to white line with four motors **hint** <https://youtu.be/c4eEeLBST9A>
3. Driving make a 90 degree turn **hint** <https://youtu.be/Mwt1i6DcoAw>
4. Drive and rotate in a square **hint=** <https://youtu.be/T7qsSldD1d4>
5. Drive and Strafe in a Square **hint** <https://youtu.be/MXjoF2XXLAE>
6. Wobble Goal-1st position **hint** https://youtu.be/9jmv3Qa42sQ_c
7. Wobble Goal 2nd Position with Encoders **hint** <https://youtu.be/Bks7X4O9m84>
8. Wobble Goal 3rd position **hint** <https://youtu.be/qqN5xwUKk3M>
9. Drive and Shoot into the high goal **hint** <https://youtu.be/t43pUXOMOXk>
10. Drive and Shoot at the Powershots **hint** <https://youtu.be/SEw5JmZKjJQ>

Some other helpful videos

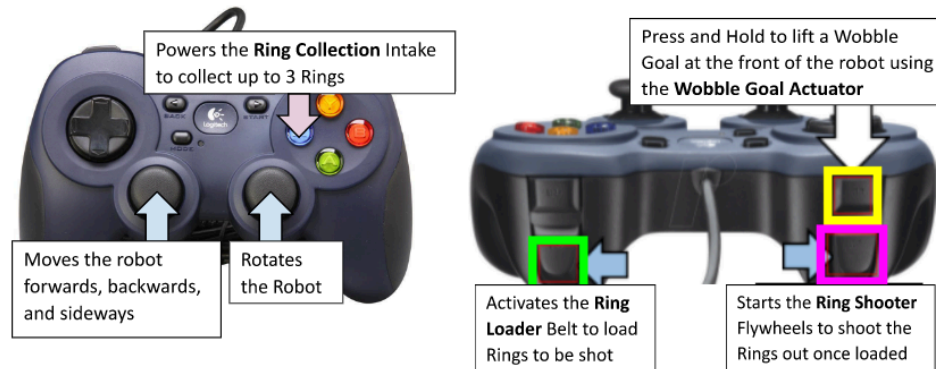
- While loops matter <https://youtu.be/FNvfNwPqAv8>
- how to make your robot reload rings <https://youtu.be/c89Kd2PHrrc>
- Shooting rings at the PowerShot targets <https://youtu.be/e9HhnPiYGC4>
- How to shoot rings at the high goal https://youtu.be/NGVdLI4G_2E
- Programming the shooter <https://youtu.be/0aAjqJnvU1E>



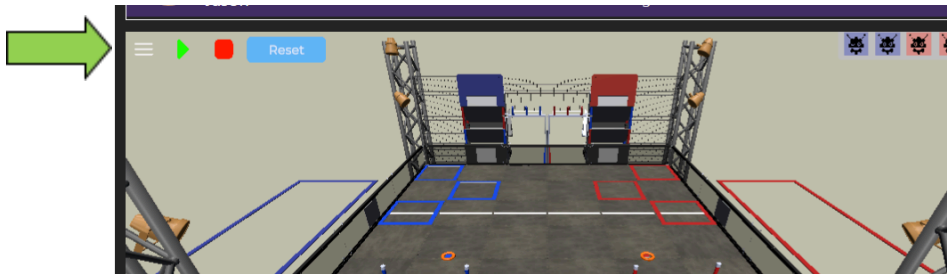
The Flywheel needs to run to get up to speed before you shoot the rings.



Game Pad controls Ultimate Goal



Set up VRS for 30 second auto



1. Click 3 lines



2. Go to game set-up window



3. Change free play to autonomous



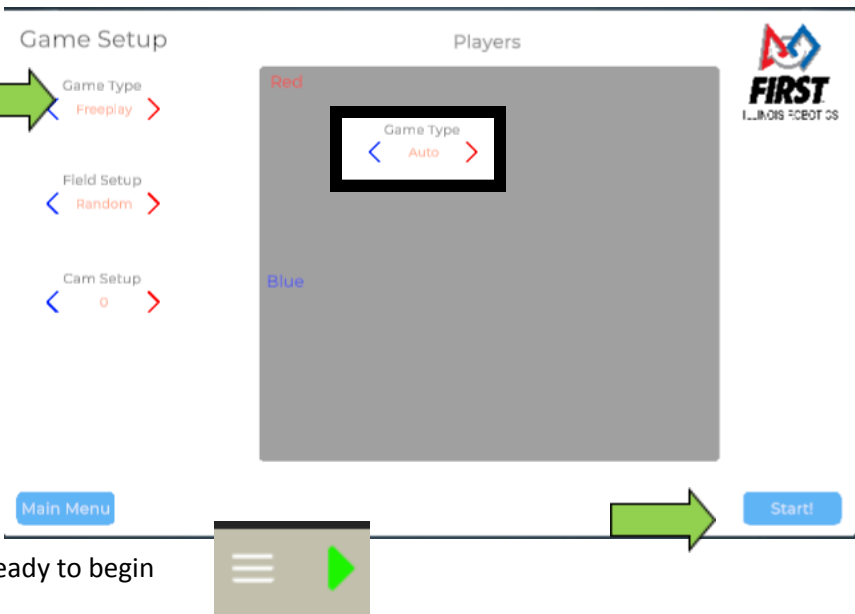
4. Option change Field setup to
- A-no rings at start)
 - B-2 rings at start
 - C-4 rings at start or choose random



5. START-blue start button



6. Click green triangle when ready to begin





Here is an overview of the motor names and their function:

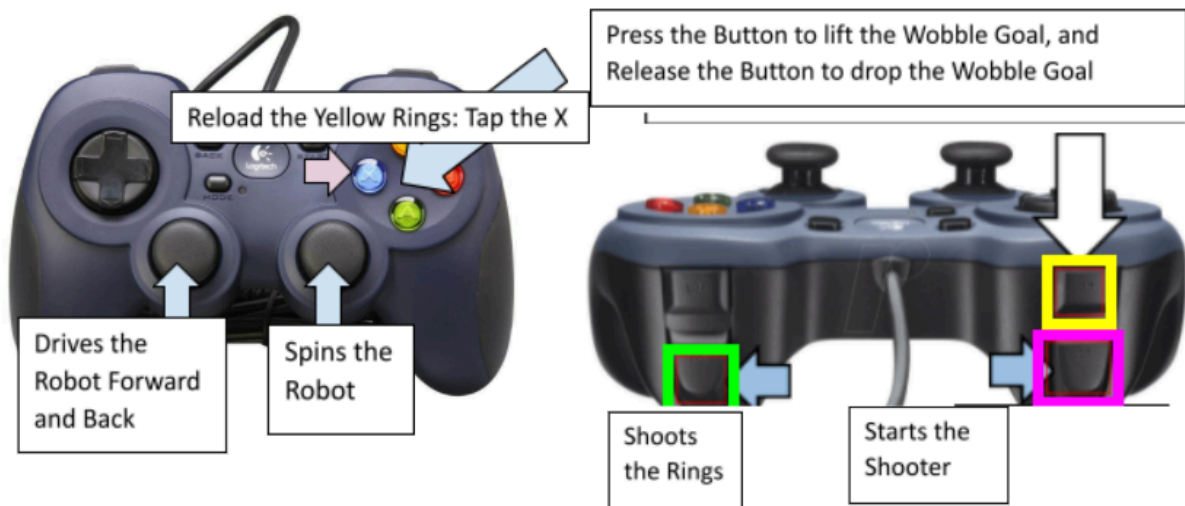
1. frontLeft: Front Left Motor on Drivetrain
2. frontRight: Front Right Motor on Drivetrain
3. backLeft: Back Left Motor on Drivetrain
4. backRight: Back Right Motor on Drivetrain
5. intake: Ring Collection Motor
6. hopper: RingLoader
7. leftShooter: ringShooter
8. rightShooter: wobbleactuator

TeleOP Scoring-Driver Control period 90 seconds

- Rings scored in low goal 2pt
- Rings scored in middle goal 4 point
- Rings scored in high goal 6 point

Final 30 seconds or end game

- wobble goal delivered to the start line 5 points
- wobble gold dropped over the edge front 20 pt
- Power shot targets knocked over 15 pt each



the VRS world speed record is 123 points and it's done in under 20 seconds

<https://www.youtube.com/watch?v=jlPl1sAOPpc>

<https://www.youtube.com/watch?v=i3KVYoaauQc>