15034H VEXcode VR Skills Challenge

Binford Elementary, Bloomington, IN, USA

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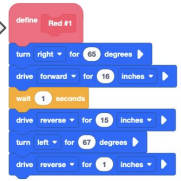
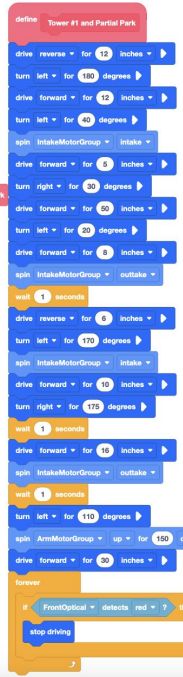
Our Code

This block is our first thing the robot does during the run. It turns the robot towards the first red block, drives into it, and returns to the starting position.



This block has the code for the first tower we dump green blocks into, Tower #2. It sucks up the first green block in the row of 4 at the starting position, gets it into the tower, turns around, gets another green, and dumps that in too for the uniform bonus.

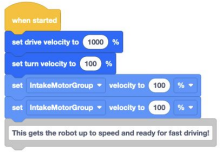


This section is for the second red block we get. All it does is suck up a green block on the way and bump into a red, and also get lined up for dumping into the tower.

This final section is what I think is THE most important. It turns around from the previous tower, goes forward to the middle of the field, gets a green block, hightails it to Tower #1, dumps it in, turns around and gets another nearby green block, dumps that in, and turns to partial park, and drives forward to do just that! At the end, it uses the optical sensor to be able to stop the robot when it reaches the supply zone bar, and that means it is parked!

This section is the second to last thing we do. What it does is dump the block that the Red #2 program picked up into Tower #3, and goes back to get the other red and another block, lines up with the tower, and dumps it in.

This is a very important section. What it does is when a block is detected in the claw with the bumper sensor, it waits, and lifts the arm. This helps the program become more efficient and makes the program less complicated. It also saved some time when coding!



This section is very simple. All it does is get the virtual robot up to full speed to be able to do things faster to save time. This is required because the robot's default is to run them at 50%, not 100%.

This is another important section. When the claw registers a block is not in there anymore, it lowers the arm and stops the spinner. This helps make the program very efficient and saves time from waiting for the arm and spinner.

This block of code runs all the different sections in order to keep the code from running crazy! The different sections already have the waits included.

How VR Skills Helped Me In Coding

In VEXcode VR, when I was coding, I learned a lot of things that I did not know before. Here is a list of them!

1. Sensors; I have never used sensors before in coding. I noticed that it is very easy to do and makes programs more efficient. I probably should have used sensors in this year's actual robot more.

2. Organizing Code; I normally have a giant jumble of code in my programs. I have noticed that using the "My Block" feature makes it a lot easier to split up code and run programs more efficiently.

3. Coding long programs; Normally, I have been a assistant coder on our team. This is my first year doing VEXcode VR, and it helped me with my overall coding performance, even when working with a real robot.