## **Team 21350B Eliminators**

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Team: 21350B

Location: Trinity Grammar School, Australia

This is my beginner code of the VEX VR Challenge. This is my first time doing VEX and I have been learning a lot about how to do the coding which is also new to me.

I have got a lot better at coding from the VEX VR and I can't wait to be able to use my new coding skills in the VEX challenge next year or if my team can make it to Worlds. My team was only new at coding so we have been working really hard to get better and now we will be ready for new challenges. I think we also need to learn more about how to use the other sensors because some I tried, and I couldn't work it out. But in Australia we are on school holidays for like the whole time of these Online Challenges so I couldn't ask my teacher to show us or teach us anything about it.

This code is all my teams own work and we didn't even get any help from adults. Always start with a control function. We used when started to start the code this is so when you press play on the playground for VEX IQ the code will start straight away.

## The Code:

Just cut We used sensors to make sure that the this for the intake is spinning and moving forward at photo in the same time this made sure that the our real blocks were always collected and there set IntakeMotorGroup - velocity to 100 % code it was wasn't any mistakes, and the robot moves set ArmMotorGroup - velocity to 100 connected. forward both at the same time. Having the sensors made sure that it was accurate and that's why they are important. drive forward • for 200 mm • 🕨 set IntakeMotorGroup - velocity to 100 % turn left - for 90 degrees 🕨 Turn the set IntakeMotorGroup - velocity to 100 % velocity to drive forward - for 90 mm - 🕨 100% because spin ArmMotorGroup - to position 300 degrees - that makes it spin IntakeMotorGroup 

outtake 
for 

turns intake and lift drive forward - for 200 mm - 🕨 heaps faster. turn right - for 100 degrees 🕨 spin ArmMotorGroup - to position 0 degrees turn left 🔻 for 🧕 degrees 🕨 drive forward - for 150 mm - 🕨 We used the drive drive forward = for 90 mm = 🕨 drive forward - for 240 mm - 🕨 function to make our spin ArmMotorGroup 🔻 to position 310 degrees 🔻 🕨 robot move forward spin IntakeMotorGroup 🔹 outtake 🝷 for 🌀 turns 🔹 🕨 and be able to turn around all the corners. turn right 🔻 for 180 degrees 🕨 drive forward - for 200 mm - 🕨 The drive program is spin ArmMotorGroup - to position 0 degrees - > the easiest to make drive forward 🔻 for 350 mm 🔹 🕨 drive reverse 🔻 for 390 mm 🔹 🕨 because you look for the angles and find the drive forward • for 100 mm • 🕨 turn left - for 90 degrees 🕨 right direction. turn left = for 90 degrees 🕨 drive forward - for 77 mm - 🕨 drive forward - for 1000 mm - 🕨 spin ArmMotorGroup - to position 300 degrees - 🕨 For outtake its always drive reverse 🕶 for 200 mm 👻 🕨 spin IntakeMotorGroup 
outtake 
for 
2 turns 2 turns this is so that turn right 🝷 for 👍 degrees 🕨 drive forward - for 2 inches the robot had time for drive forward 🔻 for 700 mm 👻 🕨 the block to make turn right - for 172 degrees 🕨 sure it gets out of the drive forward - for 1200 mm - 🕨 drive forward 🕶 for 326 mm 👻 🕨 mouth part and is spin ArmMotorGroup - to position 0 degrees - 🕨 scored before the The end of the code is to the robot robot goes to the next drive forward - for 100 mm - 🕨 can partial park in the supply zone for block. the bonus points. drive forward - for 120 mm - 🕨 drive reverse - for 290 mm - 🕨 We used the arm movement function to make the arm go up and turn left - for 68 degrees 🕨 down to certain degrees. When we wanted to collect blocks the drive forward - for 900 mm - 🕨 arm had to be at 0 degrees and then when we were shooting the drive reverse 🔻 for 70 mm 🍷 🕨 blocks we had to make the arm move up to 300 degrees. 300 degrees made sure the arm was higher than the goal so the blocks turn right - for 75 degrees 🕨 just fall in. spin ArmMotorGroup • to position 300 degrees • drive forward 🔻 for 1200 mm 🝷 🕨

## The Results:

## This was the second attempt:



Our best score at the end of the challenge was 56 points and 17 seconds which is a big improvement so on the last day of the VR Challenge we were ranked 110 in the world and 3<sup>rd</sup> for our school.

Rank	Score	Stop Time	Team Number	Team Name	Organization	Event Region	Country / Region
101	66	0	7919E	Tritt United Robotics Club	Tritt Elementary School	Georgia	United States
102	65	0	27661D	RBE D	RUCKER BOULEVARD ELEMENTARY SCHOOL	Alabama	United States
103	62	4	38677B	Best Bots	ROBERT F HUNT ELEMENTARY SCHOOL	Texas - Region 2	United States
104	61	5	48500A	QW IQ E1	Guangzhou Overseas Chinese Foreign Language School	China	China
105	61	0	69582A	Eagle Squad	Bradford Elementary School	Arkansas	United States
106	61	0	34196A	ABGPS1	ABGPS	Hong Kong	Hong Kong
107	61	0	6656T	Trazing ThunderXS	Xavier School	Philippines	Philippines
108	60	8	3580B	Stingbots Beans	SEMINOLE SCIENCE CHARTER SCHOOL	Florida - North/Central	United States
109	60	0	25595A	Lord Fartquads	St Vincent's Primary School	Australia	Australia
110	56	17	21350B	Eliminators	Trinity Grammar School	Australia	Australia