

VEX CODE VR

Student Name: ONLINE CHALLENGE 8111C

Assignment:

Notes:

Playground: VIQC Virtual Skills - Full Volume

Project Name: Team 8111C

Project Type: Blocks

Date: Wed Jan 31 2024



```

when started
set drive velocity to 100 %
set turn velocity to 100 %
set IntakeMotorGroup velocity to 100 %
set ArmMotorGroup velocity to 100 %
if FrontOptical detects green then
drive forward for 200 mm
spin IntakeMotorGroup intake for 1 turns and don't wait
turn left for 120 degrees
spin ArmMotorGroup up for 220 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
turn right for 150 degrees
spin ArmMotorGroup down for 220 degrees
turn left for 70 degrees
drive forward for 200 mm
if FrontOptical detects green then
spin IntakeMotorGroup intake for 1 turns
turn left for 120 degrees
spin ArmMotorGroup up for 220 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
turn right for 150 degrees
spin ArmMotorGroup down for 220 degrees
turn right for 60 degrees
drive forward for 100 mm
drive reverse for 100 mm
turn left for 120 degrees
drive forward for 200 mm
if FrontOptical detects green then
spin IntakeMotorGroup intake for 1 turns
turn right for 15 degrees
spin ArmMotorGroup up for 220 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
turn right for 60 degrees
spin ArmMotorGroup down for 220 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
drive reverse for 100 mm
drive forward for 200 mm
turn left for 110 degrees
spin ArmMotorGroup down for 220 degrees
drive forward for 100 mm
turn left for 90 degrees
drive forward for 100 mm
turn right for 25 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
spin ArmMotorGroup up for 220 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
turn left for 120 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
spin ArmMotorGroup up for 220 degrees
turn right for 150 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
drive reverse for 100 mm
turn right for 100 degrees
spin ArmMotorGroup down for 100 degrees
drive forward for 100 mm
spin IntakeMotorGroup intake for 1 turns
drive reverse for 200 mm
turn right for 100 degrees
spin ArmMotorGroup down for 100 degrees
drive forward for 100 mm
spin IntakeMotorGroup up for 100 degrees
and don't wait
if FrontOptical detects green then
spin IntakeMotorGroup intake for 1 turns
turn left for 110 degrees
spin ArmMotorGroup up for 110 degrees and don't wait

```

This code scores two green blocks into goal 02 and knocks down the BRACKET RED BLOCK. In addition to variables we used the function "and don't wait" for the robot to carry out two commands at the same time

goal 02

This portion of the code goes into scoring a yellow goal twice with again green blocks with the second red block knocked down

goal 02

As I'm heading towards the end of this code in which scores the last yellow goal, as you can see I don't use the sensor caused by the sensor not consistently detecting the green blocks for some reason whenever in the area of goal 2 of the VR table.

```

drive forward for 200 mm
turn right for 120 degrees
drive forward for 200 mm
spin IntakeMotorGroup intake for 1 turns
turn right for 150 degrees
spin ArmMotorGroup down for 220 degrees and don't wait
drive forward for 100 mm
if FrontOptical detects green then
spin IntakeMotorGroup intake for 1 turns
turn left for 110 degrees
spin ArmMotorGroup up for 110 degrees and don't wait

```

8111C AUTONOMOUS CODING CHALLENGE

```
when started
set drive velocity to 100 %
set turn velocity to 100 %
set IntakeMotorGroup velocity to 100 %
set ArmMotorGroup velocity to 100 %
if FrontOptical detects green ? then
drive forward for 200 mm
spin IntakeMotorGroup intake for 1 turns and don't wait
turn left for 130 degrees
spin ArmMotorGroup up for 320 degrees
drive forward for 100 mm
spin IntakeMotorGroup outtake for 1 turns
turn right for 130 degrees
spin ArmMotorGroup down for 320 degrees
turn left for 20 degrees
drive forward for 200 mm
if FrontOptical detects green ? then
spin IntakeMotorGroup intake for 1 turns
turn left for 130 degrees
spin ArmMotorGroup up for 320 degrees
drive forward for 100 mm
spin IntakeMotorGroup outtake for 1 turns
turn right for 180 degrees
spin ArmMotorGroup down for 320 degrees
turn right for 20 degrees
drive forward for 550 mm
drive reverse for 150 mm
turn left for 125 degrees
drive forward for 200 mm
if FrontOptical detects green ? then
spin IntakeMotorGroup intake for 1 turns
turn right for 17 degrees
spin ArmMotorGroup up for 320 degrees
drive forward for 550 mm
spin IntakeMotorGroup outtake for 1 turns
turn right for 51 degrees
spin ArmMotorGroup down for 340 degrees
drive forward for 270 mm
if FrontOptical detects green ? then
spin IntakeMotorGroup intake for 1 turns
spin ArmMotorGroup up for 320 degrees
turn left for 130 degrees
drive forward for 110 mm
spin IntakeMotorGroup outtake for 1 turns
drive reverse for 180 mm
drive forward for 200 mm
turn left for 110 degrees
spin ArmMotorGroup down for 320 degrees
drive forward for 500 mm
turn left for 90 degrees
drive forward for 1000 mm
turn right for 30 degrees
drive forward for 200 mm
spin IntakeMotorGroup intake for 1 turns
spin ArmMotorGroup up for 320 degrees
drive forward for 560 mm
spin IntakeMotorGroup outtake for 1 turns
turn left for 125 degrees
spin ArmMotorGroup down for 320 degrees
drive forward for 430 mm
spin IntakeMotorGroup intake for 1 turns
spin ArmMotorGroup up for 320 degrees
turn right for 155 degrees
drive forward for 560 mm
spin IntakeMotorGroup outtake for 1 turns
drive reverse for 300 mm
turn right for 150 degrees
spin ArmMotorGroup down for 160 degrees
drive forward for 790 mm
turn right for 120 degrees
drive forward for 400 mm
```

when started

spin

IntakeMotorGroup ▾

intake ▾

for

1

turns ▾

Goal #2

This code scores two green blocks into goal #2 and
knocks down the nearest red block.

In addition to variables we used the function

"and don't wait" for the robot to carry out two commands at the sa

Goal #3

This portion of the code goes
onto scoring a uniform goal bonus with again green block
with the second red block knocked down

Goal #1

We are heading towards the end of this code in which scores the last uniform goal, as you can see doesn't use an caused by the sensor not consistently detecting the green b for some reason whenever in the area of goal 1 of the VR f

```
drive forward for 200 mm
turn right for 157 degrees
drive forward for 450 mm
spin IntakeMotorGroup outtake for 1 turns
turn right for 155 degrees
spin ArmMotorGroup down for 320 degrees and don't wait
drive forward for 500 mm
if FrontOptical detects green ? then
  spin IntakeMotorGroup intake for 1 turns
turn left for 155 degrees
spin ArmMotorGroup up for 320 degrees and don't wait
```