

Student Name: 2929r

Assignment: Vex IQ VR skills challenge

Notes:

Playground: VIQC Virtual Skills - Full Volume

Project Name: Green and Red masters of cubes (2929r) (1)

Project Type: Blocks

Date: Wed Jan 31 2024

Playground Screenshot Not Found

when started

This is utilized to start the code

Code

```

define Test
  This is a block so that i could test different ideas to make my code be
  set IntakeMotorGroup velocity to 100 %
  set ArmMotorGroup velocity to 100 %
  set drive velocity to 100 %
  set turn velocity to 100 %
  spin IntakeMotorGroup Intake
  drive forward for 650 mm
  drive reverse for 610 mm
  turn left for 90 degrees
  spin IntakeMotorGroup outtake for 90 degrees
  drive forward for 50 mm
  drive reverse for 50 mm
  turn right for 90 degrees
  drive forward for 500 mm
  turn right for 90 degrees
  spin IntakeMotorGroup Intake
  drive forward for 150 mm
  spin ArmMotorGroup up for 155 degrees and don't wait
  drive reverse for 150 mm
  turn left for 90 degrees
  drive reverse for 250 mm
  turn right for 90 degrees
  spin ArmMotorGroup up for 155 degrees and don't wait
  turn left for 90 degrees
  drive reverse for 250 mm
  turn left for 90 degrees
  drive forward for 330 mm
  turn left for 90 degrees
  spin IntakeMotorGroup outtake
  wait 0.75 seconds
  drive reverse for 100 mm
  spin ArmMotorGroup down for 310 degrees
  turn right for 20 degrees
  spin IntakeMotorGroup Intake for 90 degrees and don't wait
  drive forward for 50 mm
  drive reverse for 50 mm
  turn left for 20 degrees
  spin ArmMotorGroup up for 310 degrees
  drive forward for 100 mm
  spin IntakeMotorGroup outtake
  wait 0.75 seconds
  turn right for 130 degrees
  spin ArmMotorGroup down for 310 degrees
  drive forward for 335 mm
  turn left for 60 degrees
  drive forward for 175 mm
  spin IntakeMotorGroup Intake
  turn right for 30 degrees and don't wait
  spin IntakeMotorGroup Intake for 90 degrees
  turn left for 30 degrees
  drive forward for 100 mm
  spin IntakeMotorGroup outtake
  wait 0.8 seconds
  drive reverse for 225 mm
  turn right for 60 degrees
  
```

```

define Code
  This is my main code
  set IntakeMotorGroup velocity to 1e+83 %
  set ArmMotorGroup velocity to 1e+83 %
  set drive velocity to 1000 %
  set turn velocity to 1000 %
  set myVariable to 0
  if FrontOptical detects green ? then
    drive forward for 40 mm
    spin IntakeMotorGroup Intake
    drive forward for 225 mm
  else
    if FrontOptical detects green ? then
      drive reverse for 325 mm
  spin IntakeMotorGroup Intake
  drive forward for 1300 mm
  set myVariable to 1
  spin IntakeMotorGroup Intake
  set myVariable to 2
  spin IntakeMotorGroup Intake
  turn right for 90 degrees
  drive forward for 400 mm
  turn right for 90 degrees
  turn left for 90 degrees
  drive forward for 325 mm
  turn right for 90 degrees
  drive forward for 925 mm
  turn left for 70 degrees
  spin IntakeMotorGroup Intake
  drive forward for 200 mm
  turn right for 130 degrees
  spin IntakeMotorGroup Intake
  turn left for 130 degrees
  drive forward for 550 mm
  spin ArmMotorGroup up for 350 degrees
  drive forward for 200 mm
  turn right for 20 degrees
  spin IntakeMotorGroup outtake
  wait 0.5 seconds
  turn left for 20 degrees
  drive reverse for 200 mm
  spin ArmMotorGroup down for 350 degrees
  spin IntakeMotorGroup Intake
  drive forward for 75 mm
  drive reverse for 75 mm
  spin ArmMotorGroup up for 350 degrees
  drive forward for 200 mm
  turn right for 20 degrees
  spin IntakeMotorGroup outtake
  wait 0.5 seconds
  turn left for 120 degrees
  drive forward for 200 mm
  turn right for 90 degrees
  drive forward for 150 mm
  turn left for 100 degrees
  drive forward for 100 mm
  turn right for 180 degrees
  drive reverse for 335 mm
  spin ArmMotorGroup up for 1400 degrees
  spin ArmMotorGroup down for 1400 degrees
  
```

```

define gba
  This is a block that i utilized to score the first 4 green block
  when the variable changes the robot changes Intake Fore to fill
  set IntakeMotorGroup velocity to 1e+83 %
  set ArmMotorGroup velocity to 1e+83 %
  set drive velocity to 100 %
  set turn velocity to 100 %
  spin IntakeMotorGroup Intake
  spin ArmMotorGroup up for 320 degrees
  if myVariable = 0.1 then
    turn left for 110 degrees
    drive forward for 40 mm
  else
    turn left for 70 degrees
    if myVariable = 1 then
      drive forward for 25 mm
  spin IntakeMotorGroup outtake
  wait 0.85 seconds
  if myVariable = 0.1 then
    drive reverse for 40 mm
    turn right for 110 degrees
  else
    if myVariable = 2 then
      drive reverse for 25 mm
    turn right for 70 degrees
  spin ArmMotorGroup down for 320 degrees
  stop IntakeMotorGroup
  
```

define Test

This is a block so that i could test different ideas to make my code bett

```
set IntakeMotorGroup velocity to 100 %
set ArmMotorGroup velocity to 100 %
set drive velocity to 100 %
set turn velocity to 100 %
spin IntakeMotorGroup intake
drive forward for 650 mm
drive reverse for 610 mm
turn left for 90 degrees
spin IntakeMotorGroup outtake for 90 degrees
drive forward for 50 mm
drive reverse for 50 mm
turn right for 90 degrees
drive forward for 500 mm
turn right for 90 degrees
spin IntakeMotorGroup intake
drive forward for 150 mm
spin ArmMotorGroup up for 155 degrees and don't wait
drive reverse for 150 mm
turn left for 90 degrees
drive reverse for 250 mm
turn right for 90 degrees
spin ArmMotorGroup up for 155 degrees and don't wait
turn left for 90 degrees
drive reverse for 250 mm
turn left for 90 degrees
drive forward for 330 mm
turn left for 20 degrees
spin IntakeMotorGroup outtake
wait 0.75 seconds
drive reverse for 100 mm
spin ArmMotorGroup down for 310 degrees
turn right for 20 degrees
spin IntakeMotorGroup intake for 90 degrees and don't wait
drive forward for 50 mm
drive reverse for 50 mm
turn left for 20 degrees
spin ArmMotorGroup up for 310 degrees
drive forward for 100 mm
spin IntakeMotorGroup outtake
wait 0.75 seconds
turn right for 110 degrees
spin ArmMotorGroup down for 310 degrees
drive forward for 335 mm
turn left for 60 degrees
drive forward for 175 mm
spin IntakeMotorGroup intake
turn right for 30 degrees and don't wait
spin IntakeMotorGroup intake for 90 degrees
turn left for 30 degrees
drive forward for 100 mm
spin IntakeMotorGroup outtake
wait 0.8 seconds
drive reverse for 225 mm
turn right for 60 degrees
```

when started

This is utilized to start the code

Code

```
define Code
This is my main code

set IntakeMotorGroup velocity to 1e+83 %
set ArmMotorGroup velocity to 1e+83 %
set drive velocity to 1000 %
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set myVariable to 0

if FrontOptical detects green ? then
drive forward for 40 mm
gbs
spin IntakeMotorGroup Intake
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drive reverse for 225 mm
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spin IntakeMotorGroup Intake
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set myVariable to 1
gbs
set myVariable to 2
gbs
turn right for 90 degrees
drive forward for 400 mm
turn right for 90 degrees
turn left for 90 degrees
drive forward for 325 mm
turn right for 90 degrees
drive forward for 925 mm
turn left for 70 degrees
spin IntakeMotorGroup Intake
drive forward for 200 mm
turn right for 130 degrees
spin IntakeMotorGroup Intake
turn left for 130 degrees
drive forward for 550 mm
spin ArmMotorGroup up for 350 degrees
drive forward for 200 mm
turn right for 20 degrees
spin IntakeMotorGroup outtake
wait 0.5 seconds
turn left for 20 degrees
drive reverse for 200 mm
spin ArmMotorGroup down for 350 degrees
spin IntakeMotorGroup Intake
drive forward for 75 mm
drive reverse for 75 mm
spin ArmMotorGroup up for 350 degrees
drive forward for 200 mm
turn right for 20 degrees
spin IntakeMotorGroup outtake
wait 0.5 seconds
turn left for 120 degrees
drive forward for 200 mm
turn right for 90 degrees
drive forward for 150 mm
turn left for 100 degrees
drive forward for 100 mm
turn right for 180 degrees
drive reverse for 335 mm
spin ArmMotorGroup up for 1400 degrees
spin ArmMotorGroup down for 1400 degrees
```

define gbs

This is a block that i utilized to score the first 4 green bloc

When the variable changes the robot changes intake form to fit

set IntakeMotorGroup velocity to 1e+83 %

set ArmMotorGroup velocity to 1e+83 %

set drive velocity to 100 %

set turn velocity to 100 %

spin IntakeMotorGroup intake

spin ArmMotorGroup up for 320 degrees

if myVariable < 0.1 then

turn left for 110 degrees

drive forward for 40 mm

else

turn left for 70 degrees

if myVariable = 1 then

drive forward for 25 mm

spin IntakeMotorGroup outtake

wait 0.85 seconds

if myVariable < 0.1 then

drive reverse for 40 mm

turn right for 110 degrees

else

if myVariable = 2 then

drive reverse for 25 mm

turn right for 70 degrees

spin ArmMotorGroup down for 320 degrees

stop IntakeMotorGroup