

# VEX CODE VR

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Assignment:

Notes: Team: 10012H - British Columbia

Playground: VRC Virtual Skills - Over Under

Project Name: VEXcode VR Skills Challenge

Project Type: Blocks

Date: Fri Nov 24 2023





when started

print drive heading in degrees

Resets the variable of triballouttacked and sets

set TriballOuttacked to 0

set WaitTime to 0.7

Calls the functions created

Set Drive Train and Motor Velocity

Move into position

Score Preload

Score Middle Triballs

Grab and Score Top Triballs

Grab and Score Preload Triballs

define

Score Middle Triballs

Score Middle Triballs

turn right ▼ for 135 degrees

spin IntakeMotor ▼ intake ▼

drive forward ▼ for 500 mm ▼

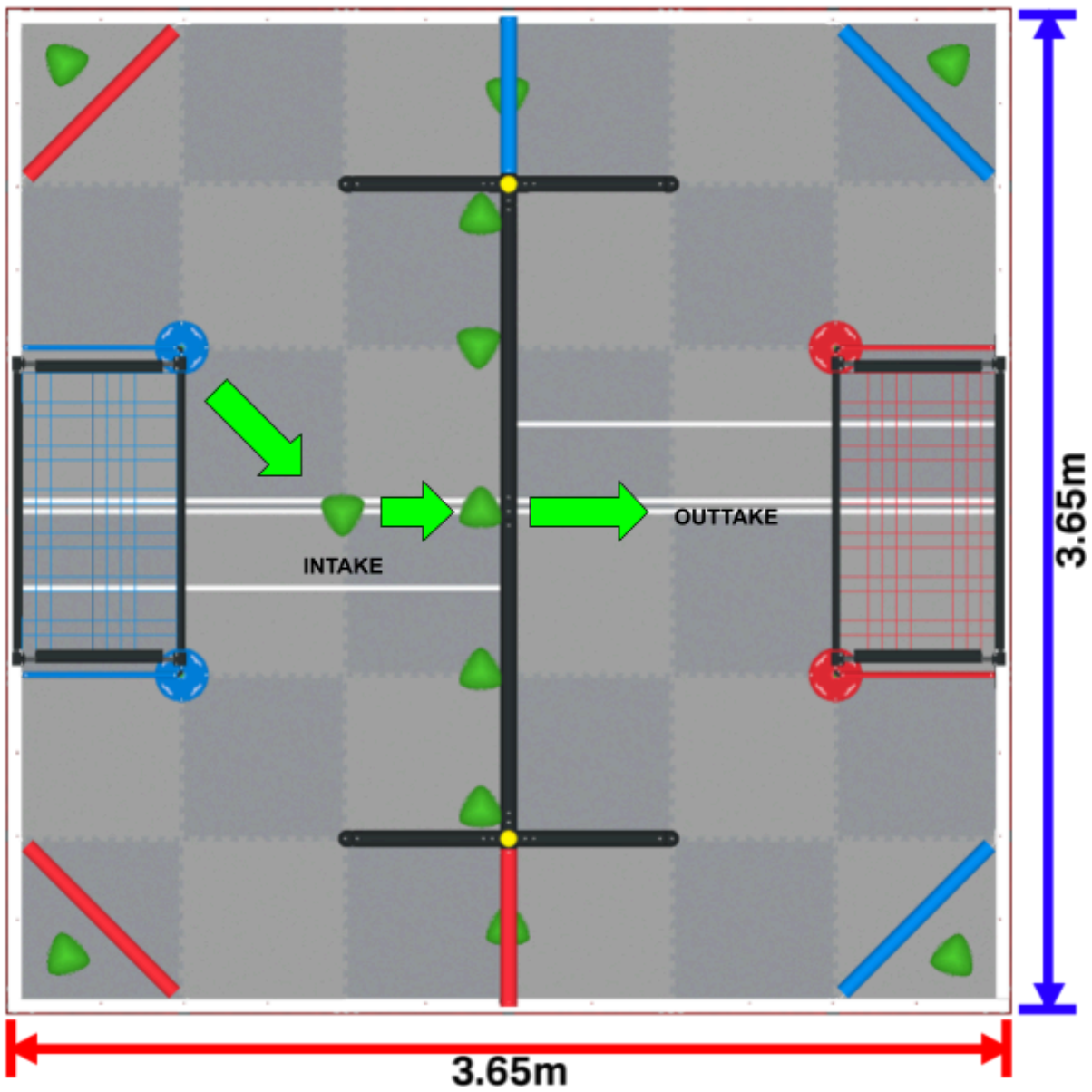
turn left ▼ for 45 degrees

drive forward ▼ for 900 mm ▼

spin IntakeMotor ▼ outtake ▼

wait WaitTime seconds

drive reverse ▼ for 1200 mm ▼



define

**Set Drive Train and Motor Velocity**

**Set Drivetrain and Motor velocities**

set drive velocity to 100 %

set turn velocity to 100 %

set ArmMotor ▼ velocity to 100 % ▼

set IntakeMotor ▼ velocity to 100 %

define

Score Preload

Scores Preload Triballs in the Blue All

repeat

2

drive

forward

for

600

mm

spin

IntakeMotor

intake

turn

left

for

90

degrees

spin

IntakeMotor

outtake

wait

1

seconds

stop

IntakeMotor

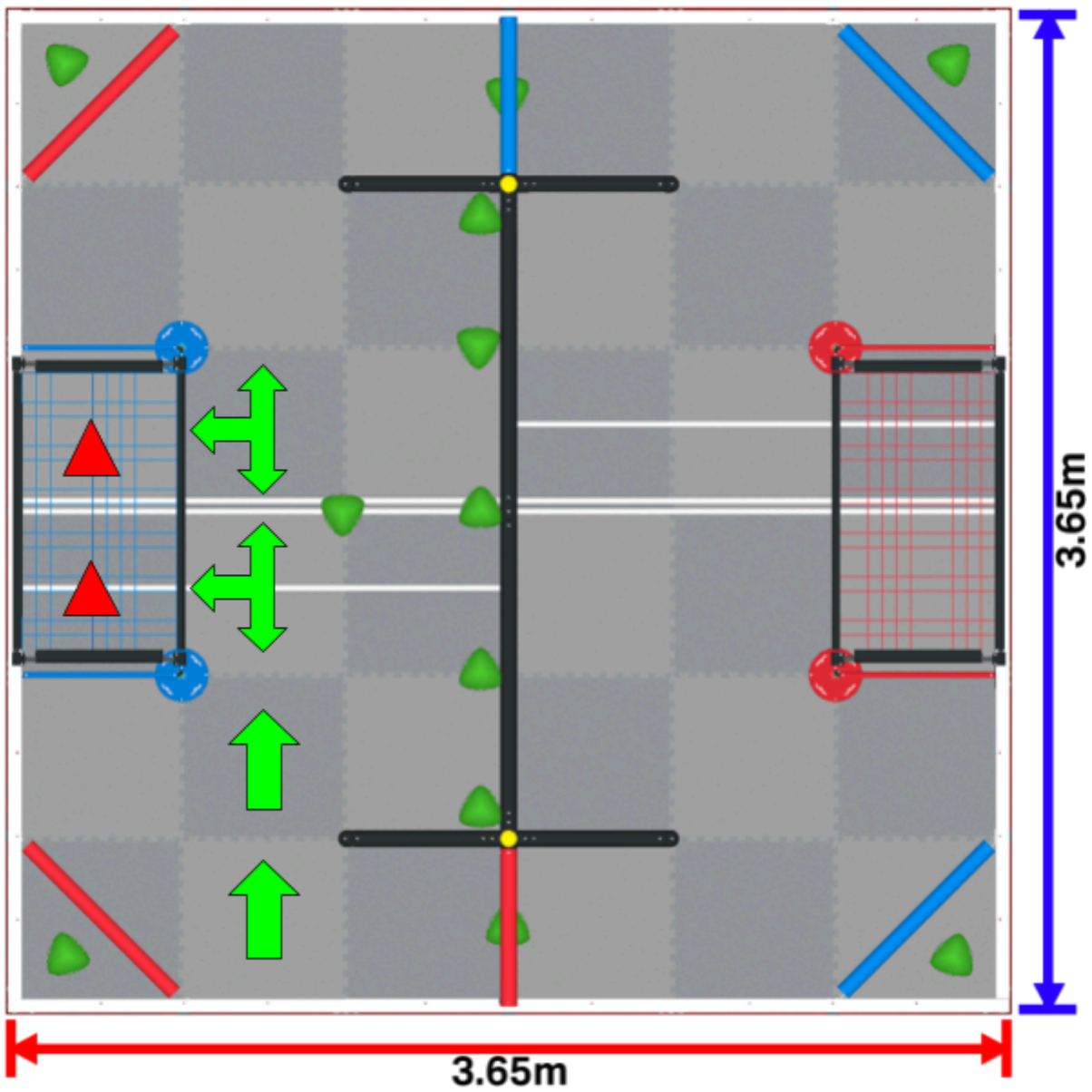
turn

right

for

90

degrees



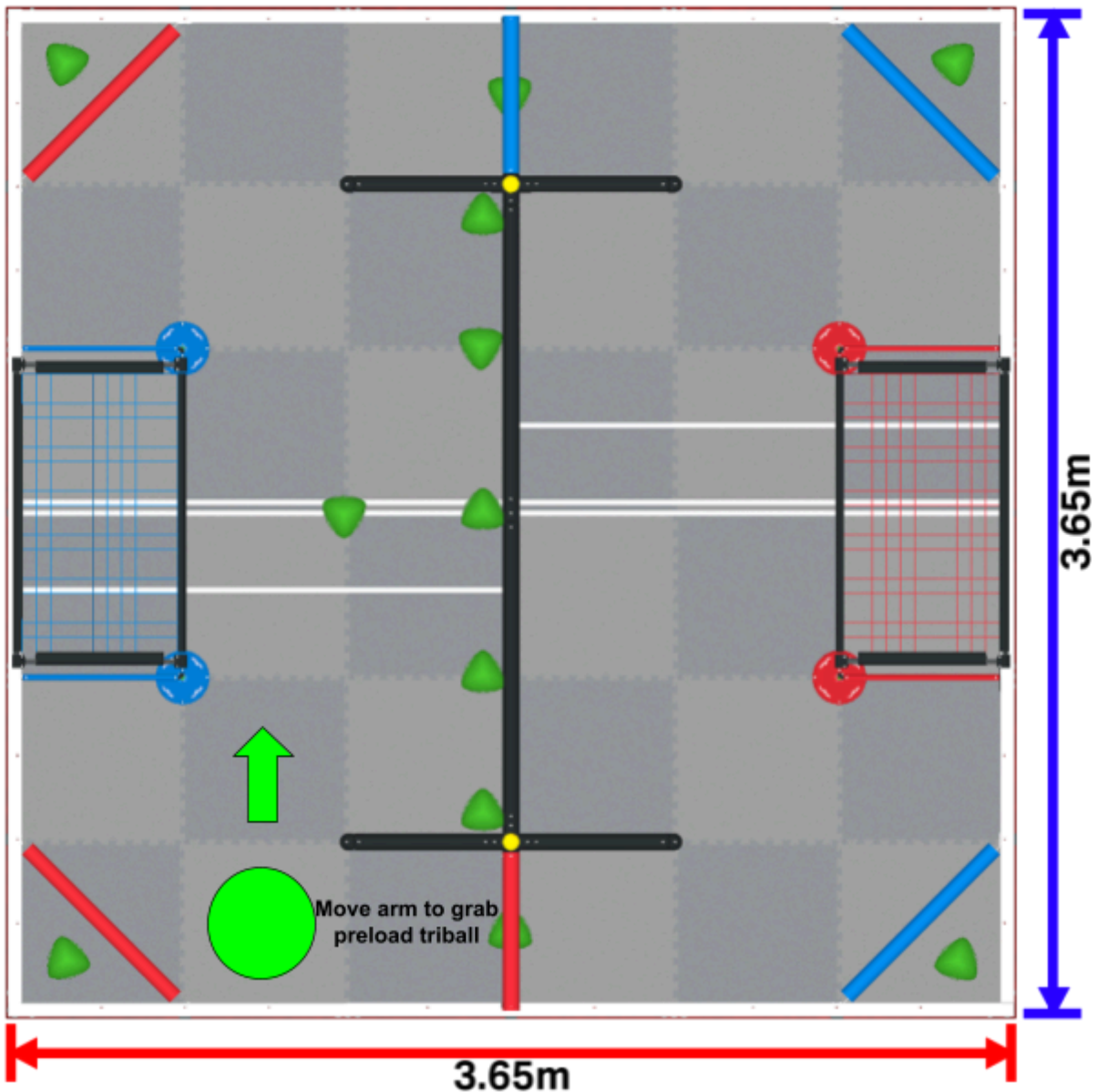


```

define [Move into position]
  Move into position to score preload
  spin [ArmMotor] to position [1200] degrees
  drive [forward] for [600] mm

```

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define **Grab and Score Top Triballs**

Grab and score top Triball

Sets the variable of distance and Triball

set DistanceToTriball to 900

set TriballAngle to 55

Top Triballs

drive reverse for 1200 mm

Sets the variable of the distance and Tri

set TriballAngle to 45

set DistanceToTriball to 600

Top Triballs

drive forward for 500 mm

spin IntakeMotor outtake

wait WaitTime seconds

drive reverse for 1700 mm

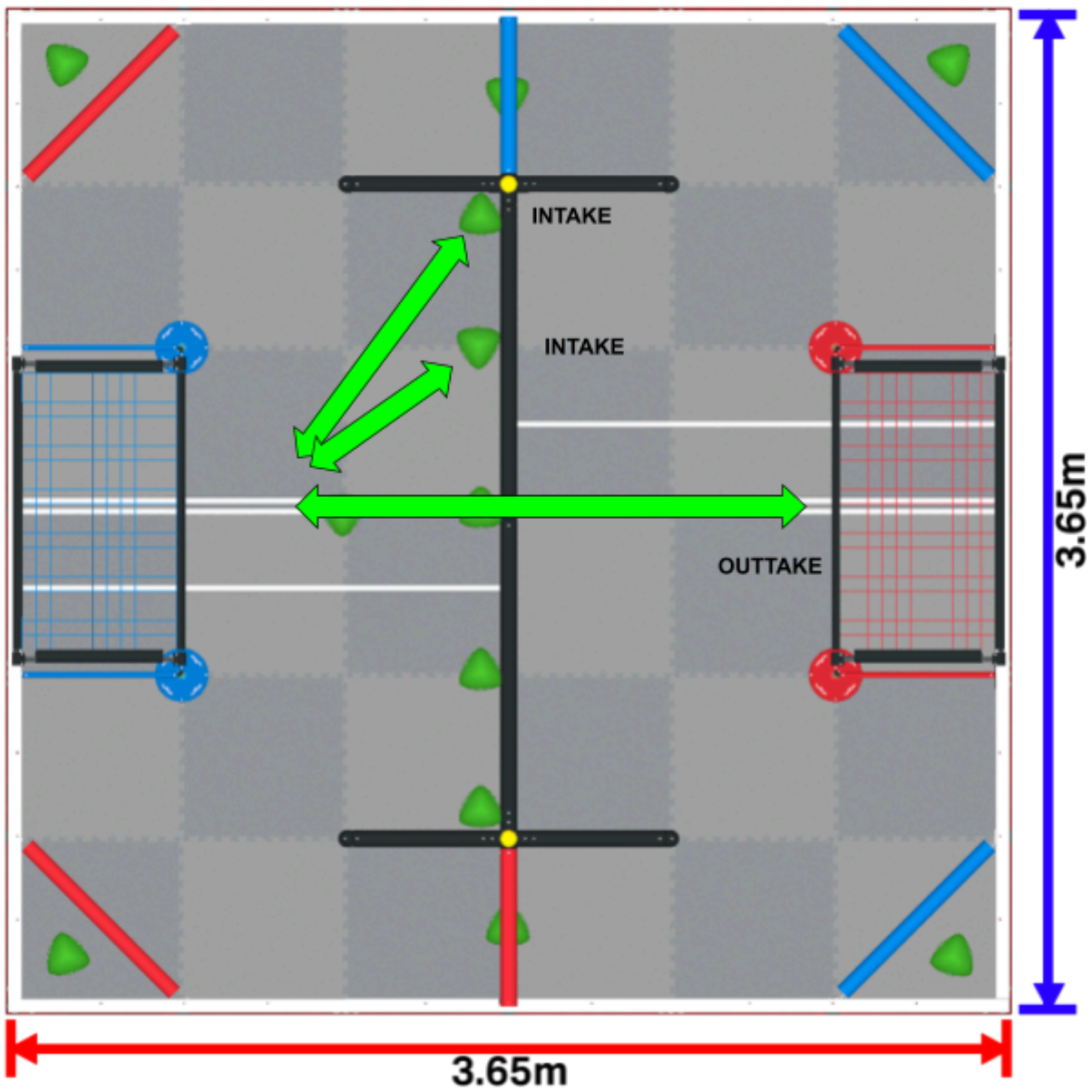
define **Top Triballs**

Moves to grab top triballs depending on the Triball angle and moves to it

```
turn left for TriballAngle degrees
drive forward for DistanceToTriball mm
spin IntakeMotor intake
wait WaitTime seconds
drive reverse for DistanceToTriball mm
turn right for TriballAngle degrees
drive forward for 1200 mm
spin IntakeMotor outtake
```

Checks if the a triable has been outtakes or not and if not then just move

```
if TriballOuttaked = 0 then
  wait WaitTime seconds
  change TriballOuttaked by 1
```



```

define Grab and Score Preload Triballs
  Grab and Score Preload Triballs
  turn left for 90 degrees
  drive reverse for 900 mm
  turn left for 136 degrees
  drive forward for 830 mm
  repeat 10
    spin IntakeMotor intake
    wait WaitTime seconds
    drive reverse for 1500 mm
    turn left for 135 degrees
    Checks if the robot is facing the right direction
    changes it
    if not drive heading in degrees = 90 then
      turn to heading 90 degrees
    drive forward for 950 mm
    spin IntakeMotor outtake
    wait WaitTime seconds
    drive reverse for 800 mm
    turn right for 140 degrees
    if not drive heading in degrees = 230 then
      turn to heading 230 degrees
    drive forward for 1600 mm

```

Loops this movement until the timer runs out

