

VEX VR SKILLS CHALLENGE

Team Number: 25595B

Team Name: Resquad

Location: Gold Coast, Australia

Participants: Zane, Beau, Rafael, Ricky, Caleb

VEXVR Code #1

Result: 81 points with 4 seconds to spare

Strategy: Get the most points on the leaderboard

Comments

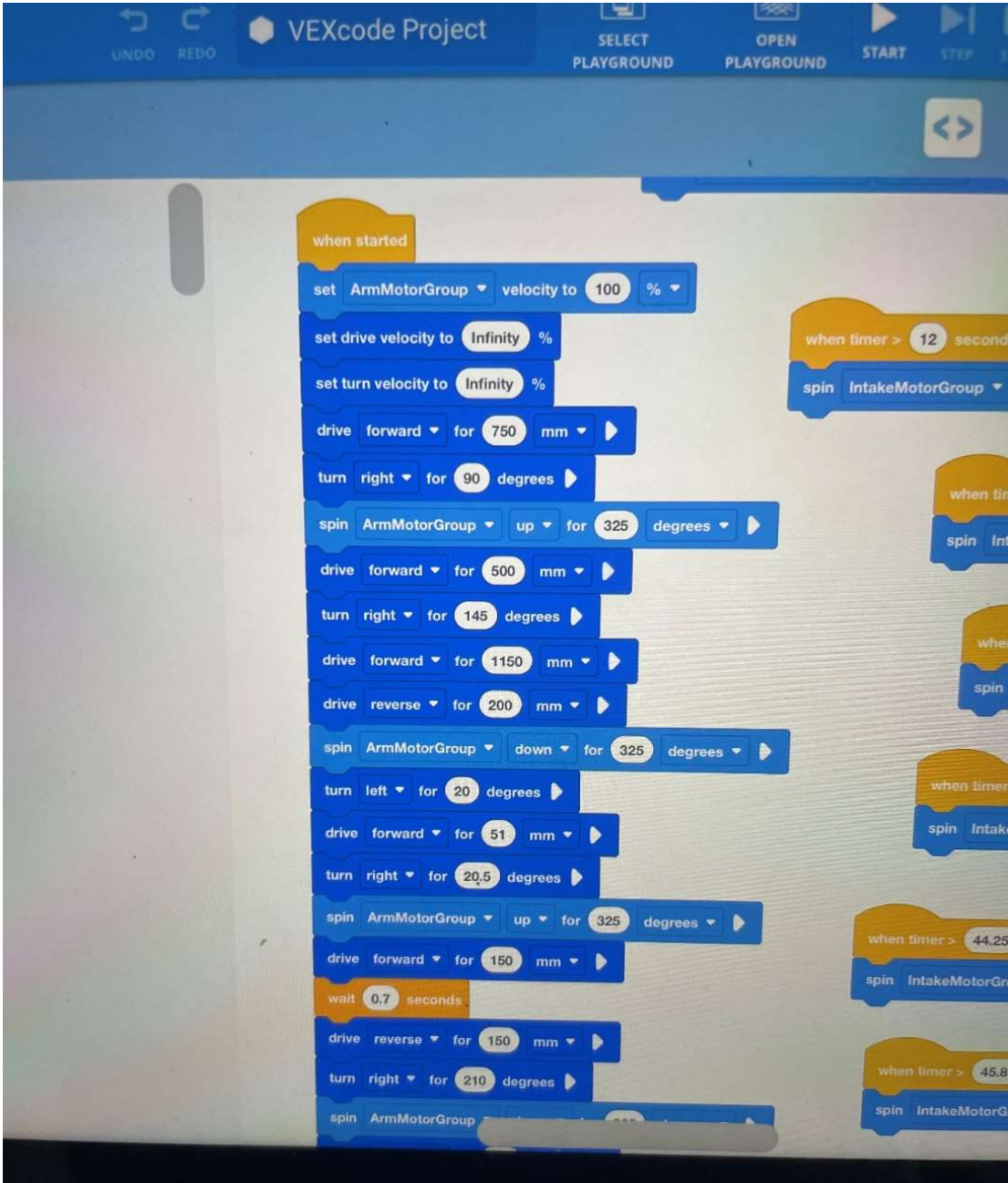
Our teacher, Mrs Ricardo, told us about VEXVR coding online. I taught myself how to use the program and just wanted to get the most points possible.

After about 1-2 months I got 81 points with 4 seconds to spare, using the strategy I talked about in my video! That got me to 3rd place in Australia.

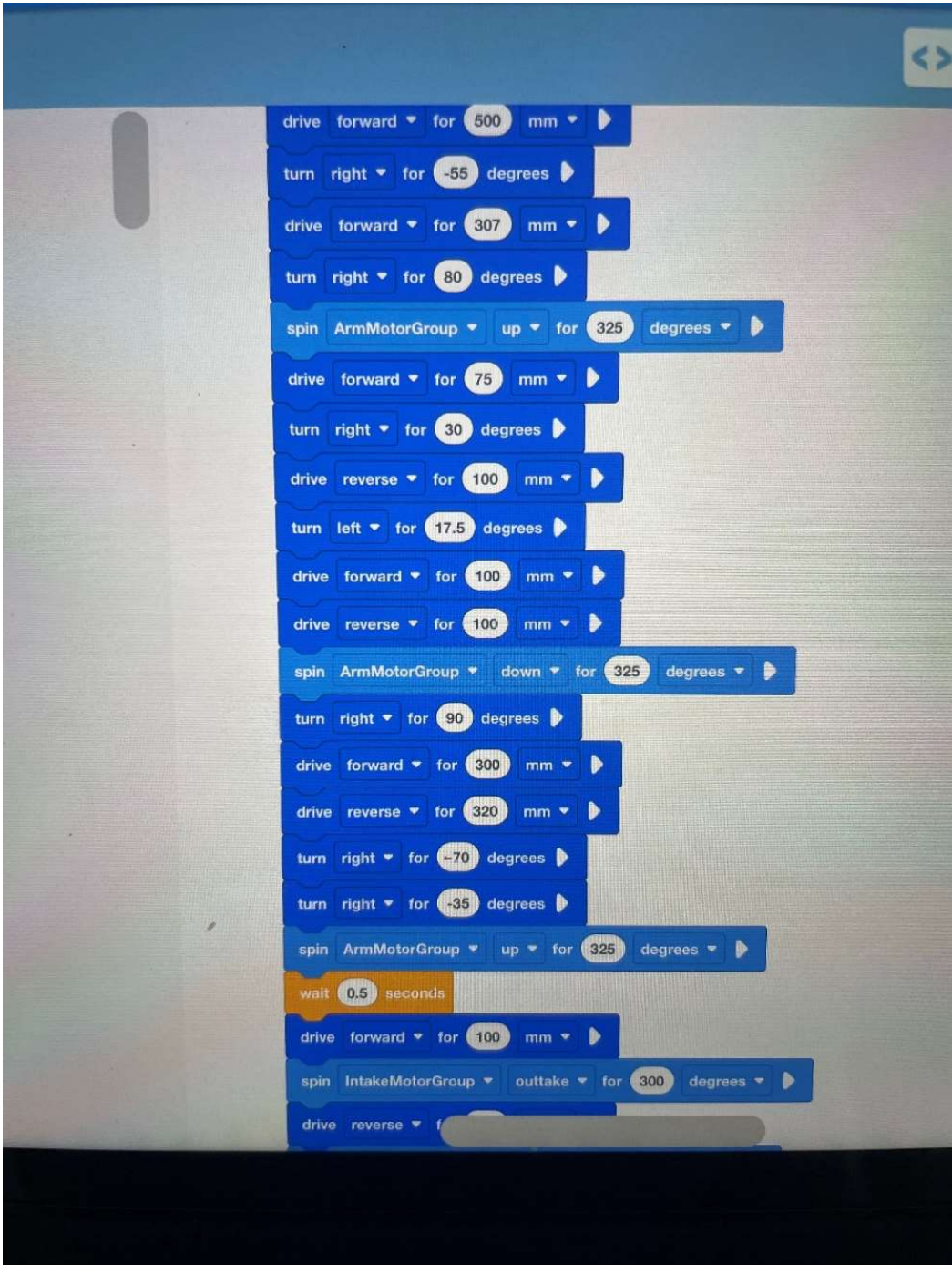
When I went to Nationals in November, I found out we could go to Worlds for coming first in this competition.

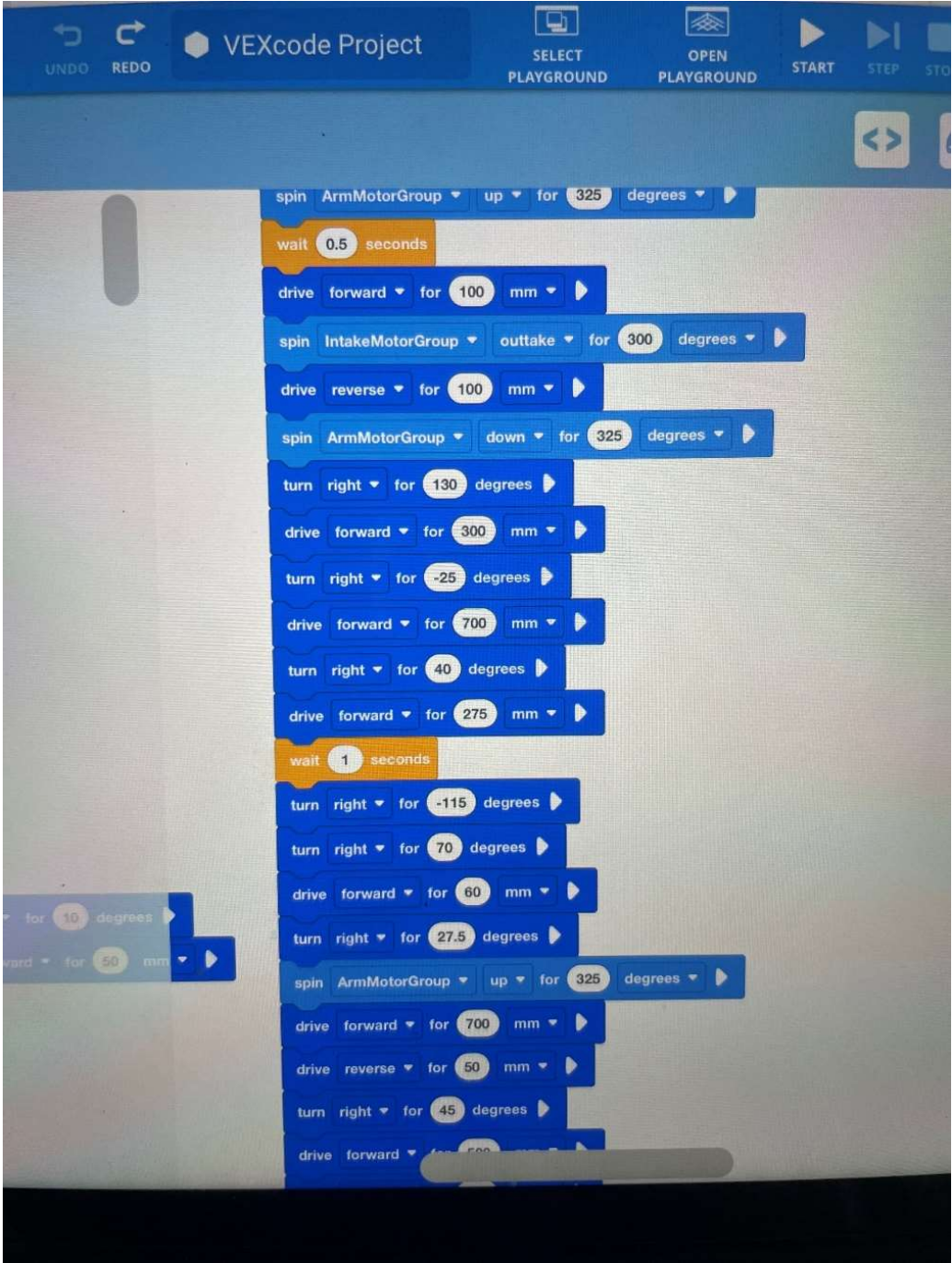
I read the judging criteria and found out I needed to use variables, functions, sensors and all this fancy stuff that I had never heard of before in order to get the highest marks in the judging criteria.

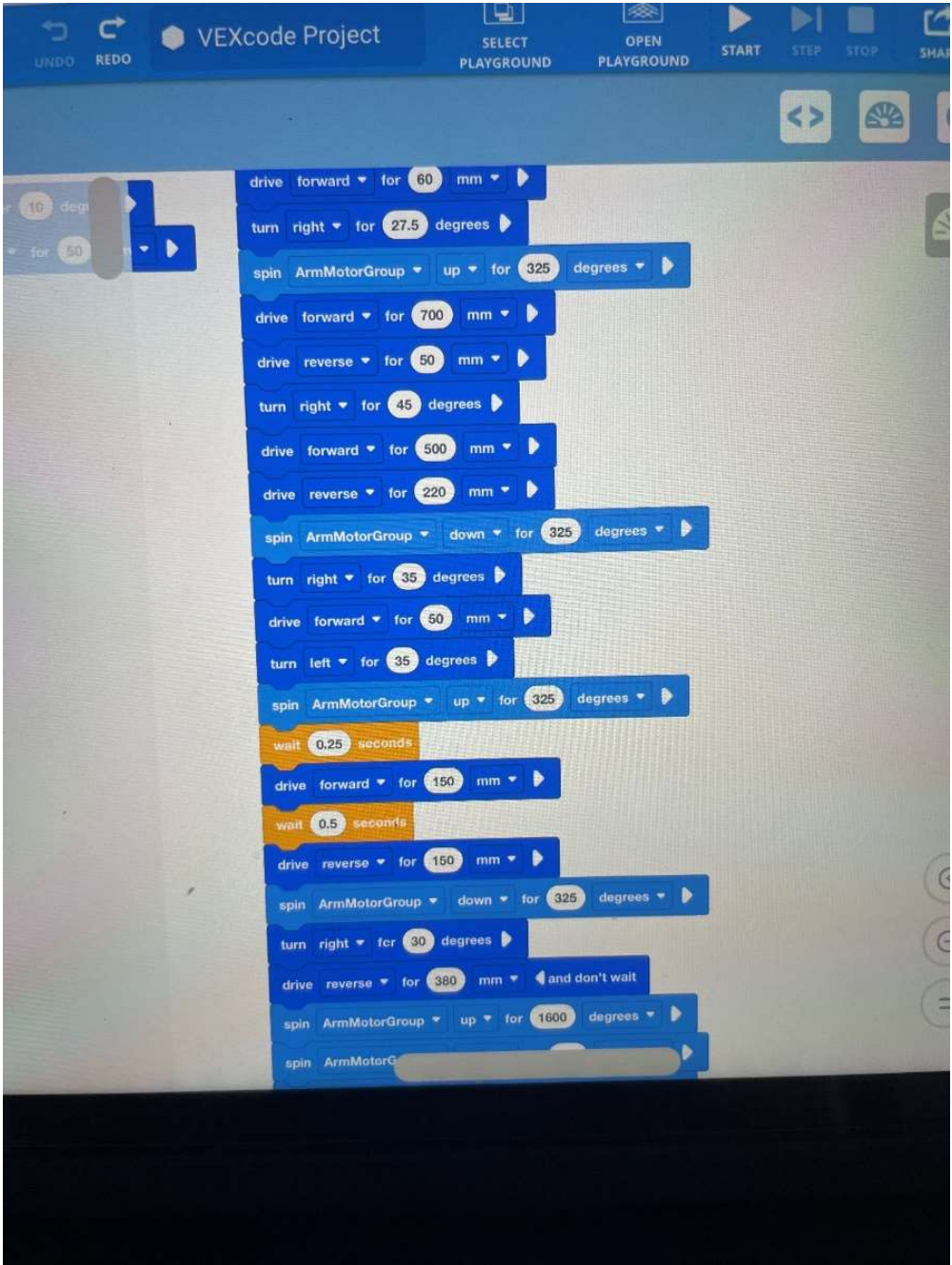
Below is the code that got me 81 points, but doesn't use any fancy stuff. In December I started rewriting my code to get more points from the judges.



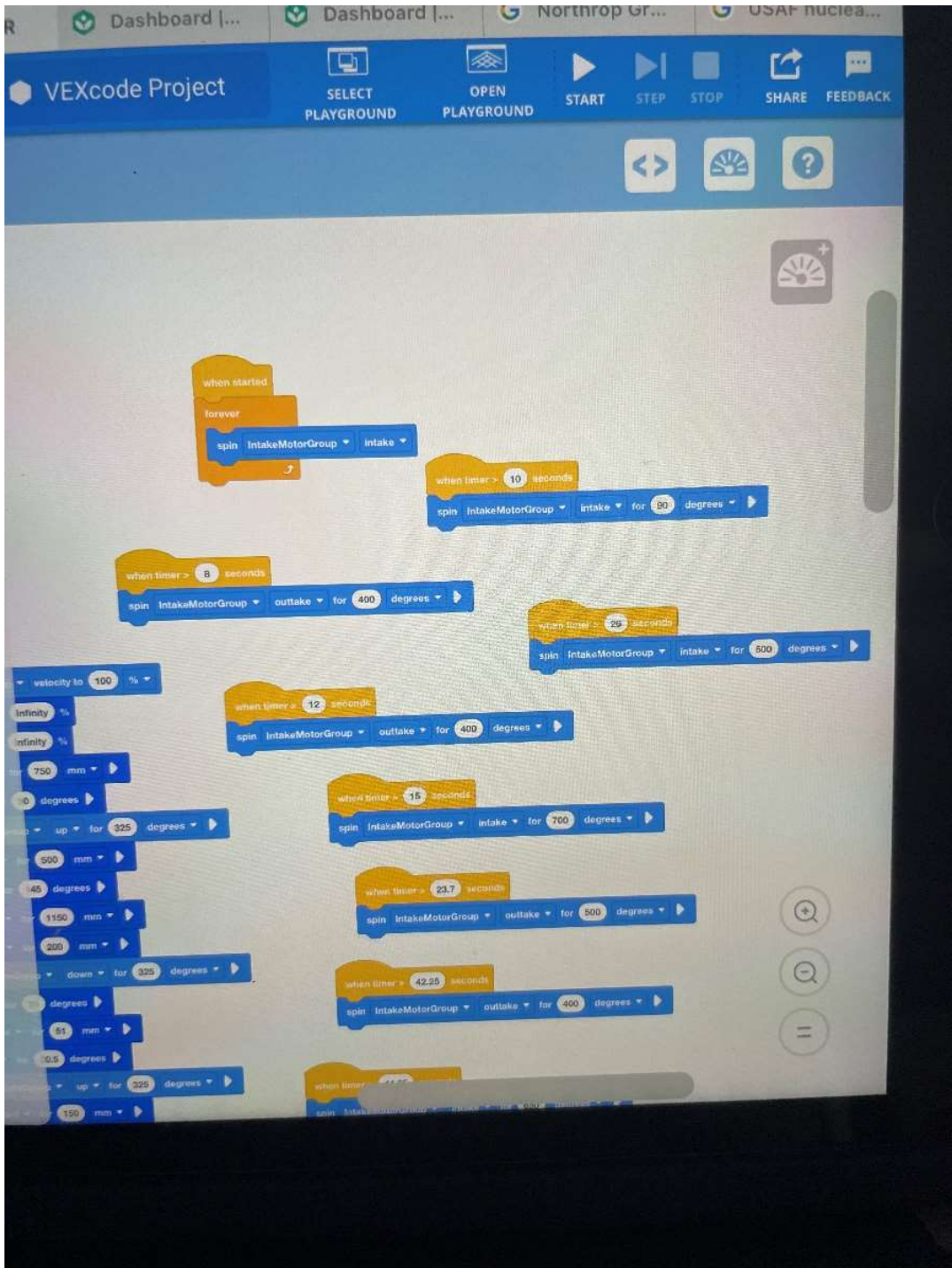
```
drive reverse for 200 mm
spin ArmMotorGroup down for 325 degrees
turn left for 20 degrees
drive forward for 51 mm
turn right for 20.5 degrees
spin ArmMotorGroup up for 325 degrees
drive forward for 150 mm
wait 0.7 seconds
drive reverse for 150 mm
turn right for 210 degrees
spin ArmMotorGroup down for 325 degrees
drive forward for 400 mm
drive reverse for 100 mm
turn left for 85 degrees
drive forward for 200 mm
drive forward for 350 mm
turn to heading -35 degrees
drive forward for 500 mm
turn right for -55 degrees
drive forward for 307 mm
turn right for 80 degrees
spin ArmMotorGroup up for 325 degrees
```

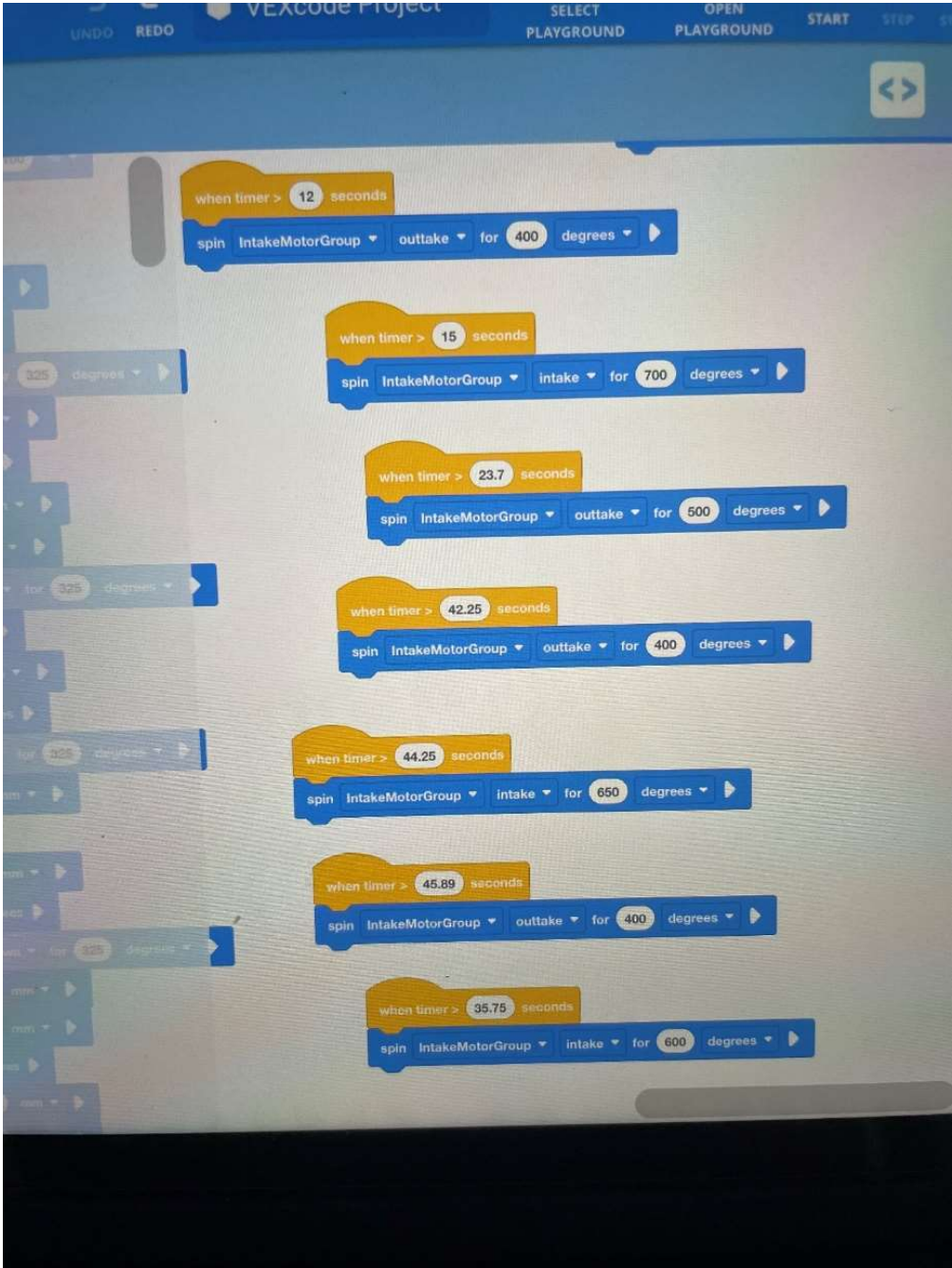






```
spin ArmMotorGroup up for 325 degrees
wait 0.25 seconds
drive forward for 150 mm
wait 0.5 seconds
drive reverse for 150 mm
spin ArmMotorGroup down for 325 degrees
turn right for 30 degrees
drive reverse for 380 mm and don't wait
spin ArmMotorGroup up for 1600 degrees
spin ArmMotorGroup down for 800 degrees
spin ArmMotorGroup up for 3000 degrees
```



VEXVR Code #2

Result: 50 points

Strategy: Effective use of variables, operators, functions & sensors

Comments

When I watched a YouTube tutorial on how to use operators, functions, sensors and all of that, it said to properly do it I was going to have to convert my script to C++.

As it was Jan 2024 and I didn't have time to learn a whole new system I did what I could in Blocks and the code below is the result.

```
when started
  I learnt how to use the comment section
  set MoveBlock to 250
  I used variables instead of hard coded numbers because i found it easier and quicker
  set ArmMotorGroup velocity to 100 %
  set drive velocity to Infinity %
  set turn velocity to Infinity %
  drive forward for Mm * 3 mm
  turn right for 90 degrees
  Up and down 1 Degrees true Up is true, left is false
  drive forward for 500 mm
  turn right for 145 degrees
  drive forward for 1150 mm
  drive reverse for 200 mm
```

when started

These sensors change the velocity and this act results in a more accurate code

forever

if IntakeMotorGroup is spinning? then

set IntakeMotorGroup velocity to 50 %

when started

forever

if ArmMotorGroup is spinning? then

set ArmMotorGroup velocity to 100 %

when started

if drive is moving? then

set drive velocity to 100 %

set turn velocity to 100 %

```
define Up and down Degrees boolean Up is true, left is false
```

This function uses a block to move the robots arm up and down
Resulting in it taking me less time to code

```
if boolean then  
  spin ArmMotorGroup up for 325 degrees  
else  
  spin ArmMotorGroup down for 325 degrees
```

THANK YOU

We hope to see you at Worlds!

