Automation & Robotics Virtual Learning

7th & 8th Virtual Robots

Vex VR - STEM LAB COding a Vex Robot

May 22, 2020

PLTW: Automation & Robotics
Lesson: May 22, 2020

Objective/Learning Target:
Learn & practice Sensors in VEXcode VR

Warm-up

IDENTIFY WHAT YOU KNOW SO FAR:

How many repeat commands did you use in your spirograph program?

What does it mean to “nest” your commands?

If you did not send in your code, draw below what your program produced?
(It is okay f did not achieve the results you thought!)

Lesson/Background:

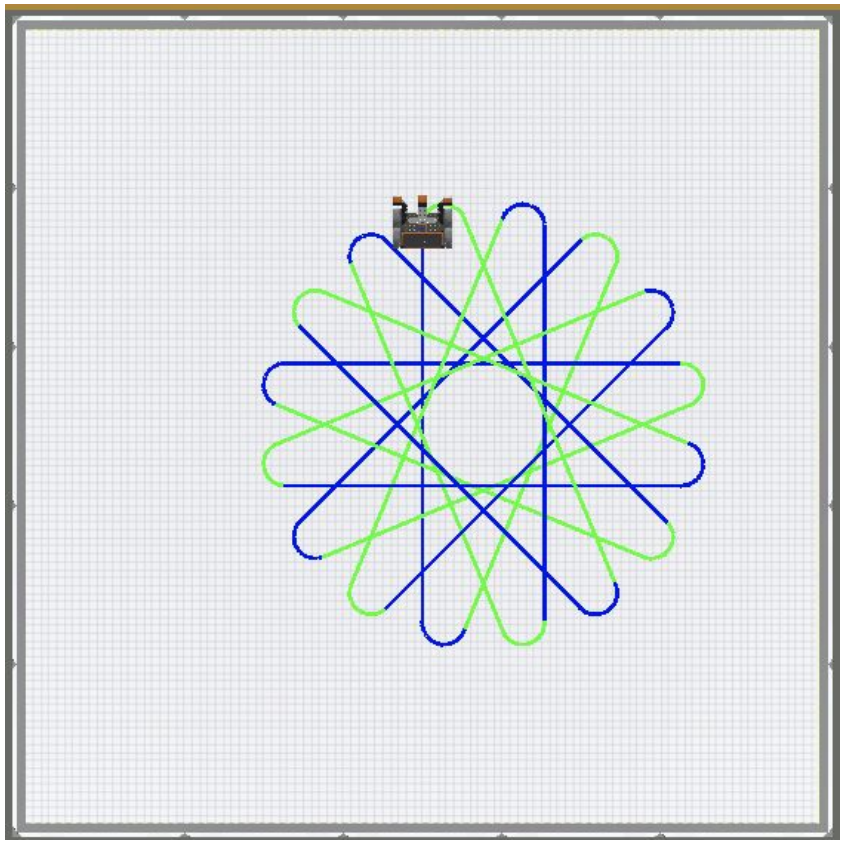
Creating longer programs and coding that nest inside aa loop is not always easy. Getting the right angles can also be a huge Challenge. Did you find that you needed to make really large turns to have a pointier design?

For today's lessons you will need:
TO Go to VEXcode VR

In today's practice you will:
Develop programs with sequences and simple loops, to express ideas or address a problem. Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.
Create clearly named variables that represent different data types and perform operations on their values.

Lesson/Background

This is today's Playground!



You will extend your knowledge to create a Sprial Geometric Drawing

Practice/Challenge:

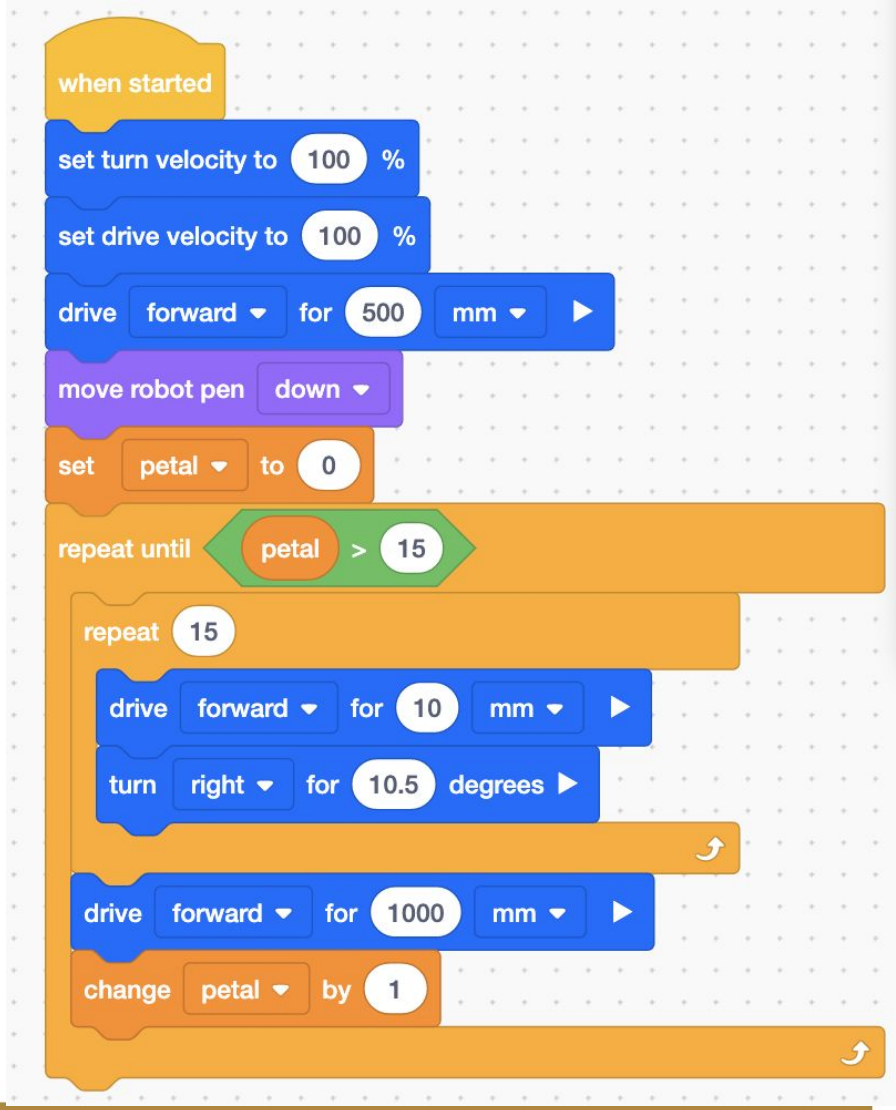
Answer ALL questions below in your focused notes. Question on the left, answers on the right.

VR Spirograph!

Playground: Art Canvas
Challenges:
Level 1: So perhaps yourcode did not go so well…
Maybe you had an awesome design.
Let's look at a sample program.
Type it the follow block codes & Run it

Level 2: How can you add code to make it 2 color as in the image on Slide 5

Level 3: Try again to reate an algorithm that layers multiple spiral patterns to make a more elaborate Design. Note: you will need to have more than one set code.

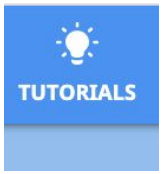


Assessment:

Save and download the program you make today and share it with me. Or send me a screenshot of your sprirograph!
I would love to see your progress.

Don't know how to name, save or download your

While in VexCode VR - go to tutorials --->



At the top row of tutorials, the last one is How to Name & Save

Questions throughout the week?
Email me:
lisa_douthit@isdschools.org

Extend Your Learning:

Keep exploring using any of the codes skills you have learned to move your robot!