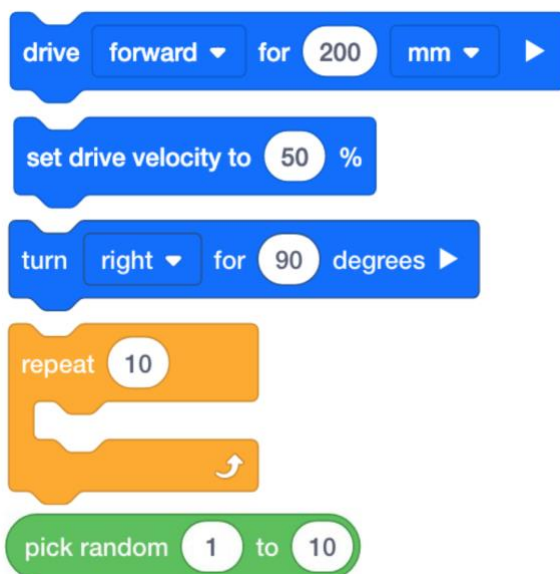Spring 2021

CISC 1003 – Move a Random Distance Lab

We will be using the VR.VEX environment for our class: https://vr.vex.com/

Playground: Numbered Grid Map

Challenge: use the following blocks in your program. Properly edit their values to correspond to what the robot should do.

drive forward for 200 mm ▶

set drive velocity to 50 %

turn right for 90 degrees ▶

repeat 10

pick random 1 to 10

Repeat-move-a-random-distance - program settings:
- Repeat 3 times:
  - Program the robot to move a random number of blocks (between 1 and 10 blocks) and stop.
  - Turn right 90 degrees
- Place a comment before the loop explaining what the part the code will be doing.
- You can also place a Note about the program: right click the program area and select 'Add Note'.
  Information on Notes:
  https://kb.vex.com/hc/en-us/articles/360041797511-Notes-Tutorials-VR-Blocks

Directions:
- Step 1: **Move-to-number-one-time**: program the robot to move a random number of blocks (between 1 and 10 blocks) and stop.

- Step 2: Use the **Move-to-number-one-time** program to solve the main **Repeat-move-a-random-distance** challenge.

Additional instructions:
- Add a comment with your name (using the gray box) at the beginning of the program.
- Place comments (using the gray boxes) in the program to explain what the program will be doing.

Submitting Projects/HW:

When submitting your assignments, please submit the following:
- PDF of the code
- VEXcode Project
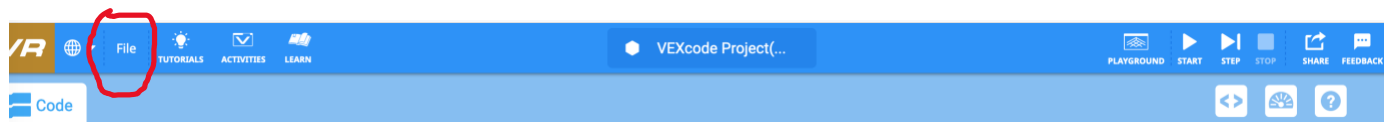- Screenshot of the playground after the program has stopped.

Your submission should include the three files. Name your file using your Last name.Firstname and the lab name. E.g., Doe.Jane.movetoNumber.pdf, Doe.Jane. movetoNumber.png, etc.

How to get these items:

- PDF of the code: share the code to get the PDF image of the program
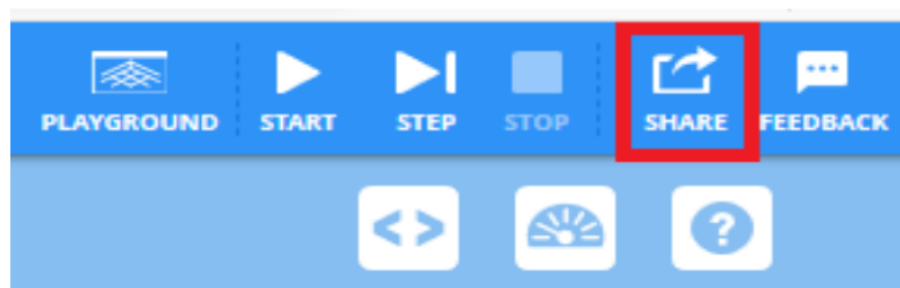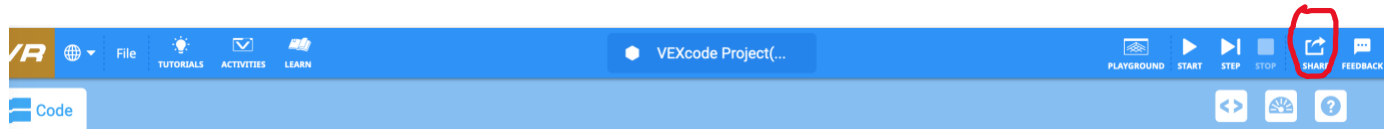
- VEXcode Project: In the VEX code project go to: File, Save to Your Device

- Save a screen shot of the robot playground that showed what the robot after the program is complete: https://www.theverge.com/2019/11/8/20953522/how-to-take-screenshot-mac-windows-pc-iphone-android

- Adapted from material by Prof. Lawrence Goetz