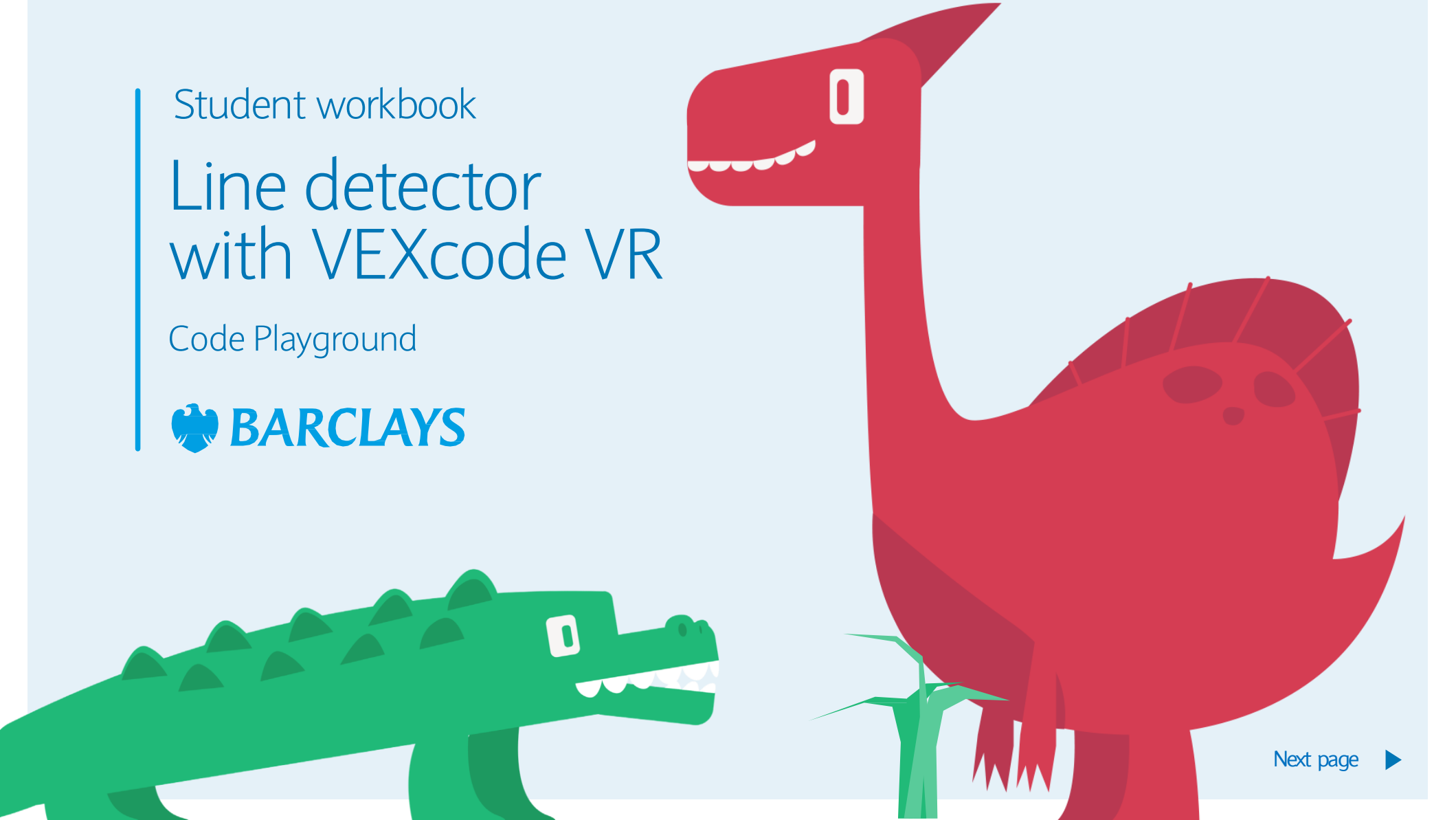
Student workbook

Line detector with VEXcode VR

Code Playground

BARCLAYS



Next page

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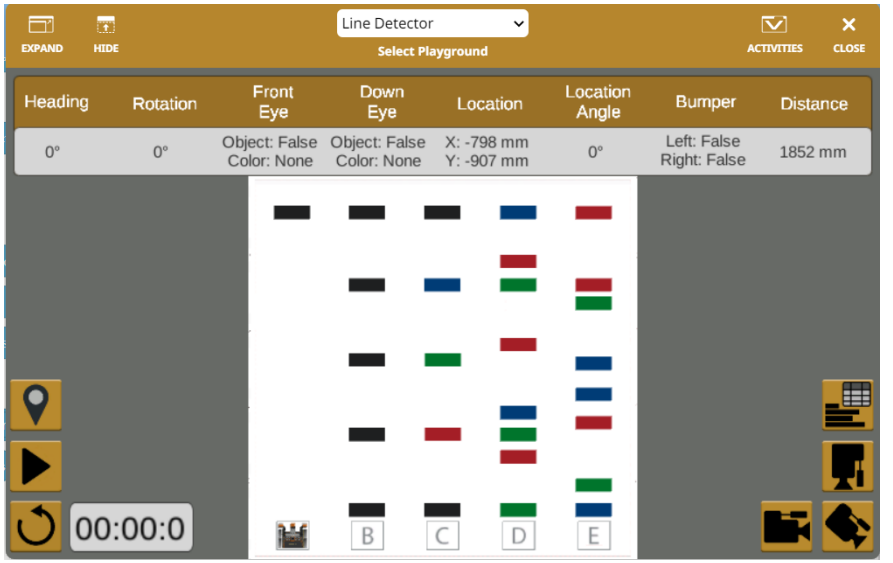
VEXcode VR project

In this session, we will learn about using variables to store information for our coding projects. A variable is a container that you can use to store information that you can use in your code. Variables are important across all levels of coding because they allow you to store and update data in your projects.

This project is designed for the VEXcode VR system, you can access it here - https://vr.vex.com/

For this session, you will need to select the Line Detector playground.

Hope you enjoy the project!



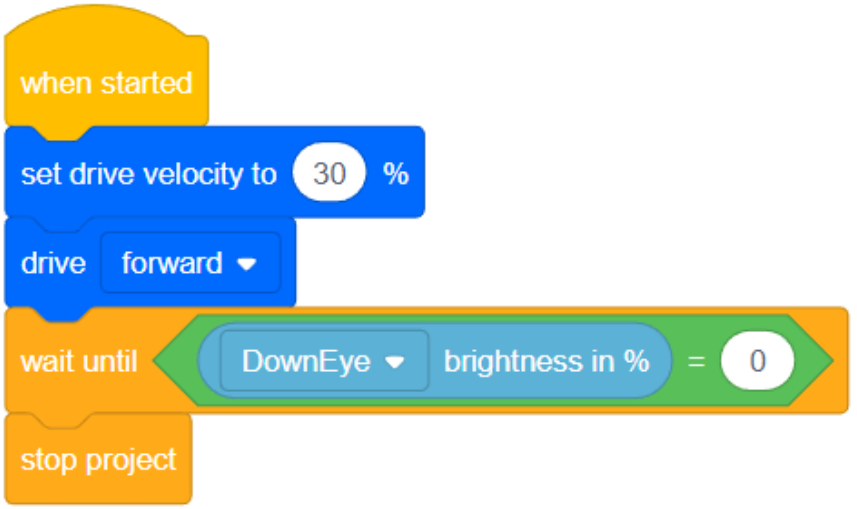
Line detector with VEXcode VR

VEXcode VR project

Step 1

Use this code to allow the robot to sense when it gets to a black line in the playground.

**Top tip – The down eye cannot detect the colour black so we use the brightness % to show when the robot goes over a black line



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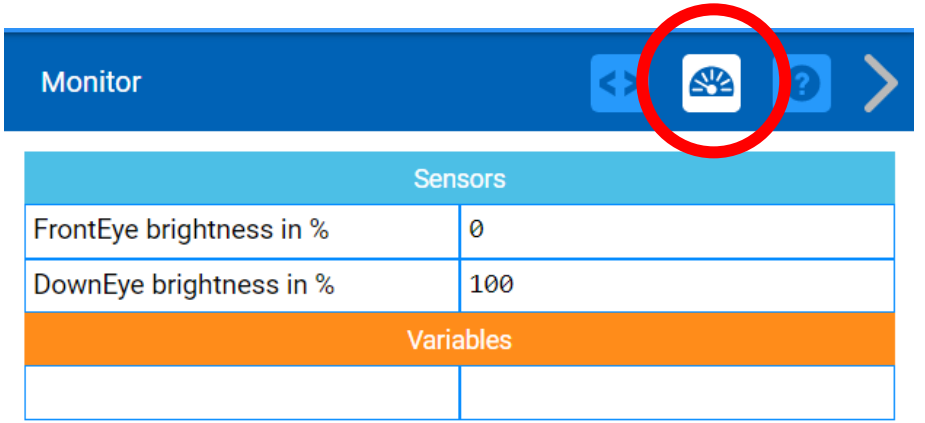
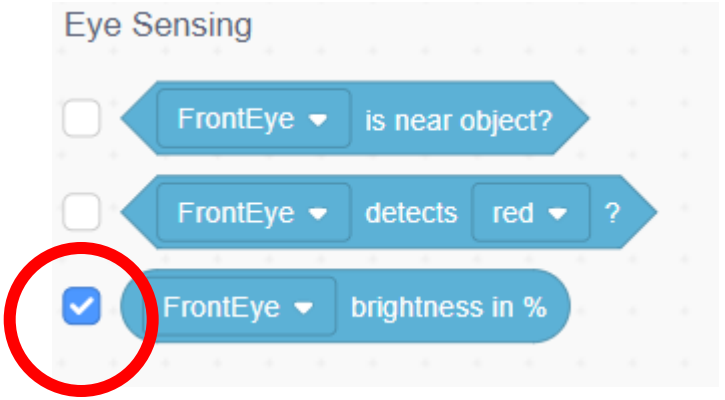
Step 2

We can use the monitor at the top right of the coding screen to see what information the robots sensors are picking up.



**Top tip - Make sure that you select the sensor information that you want to see



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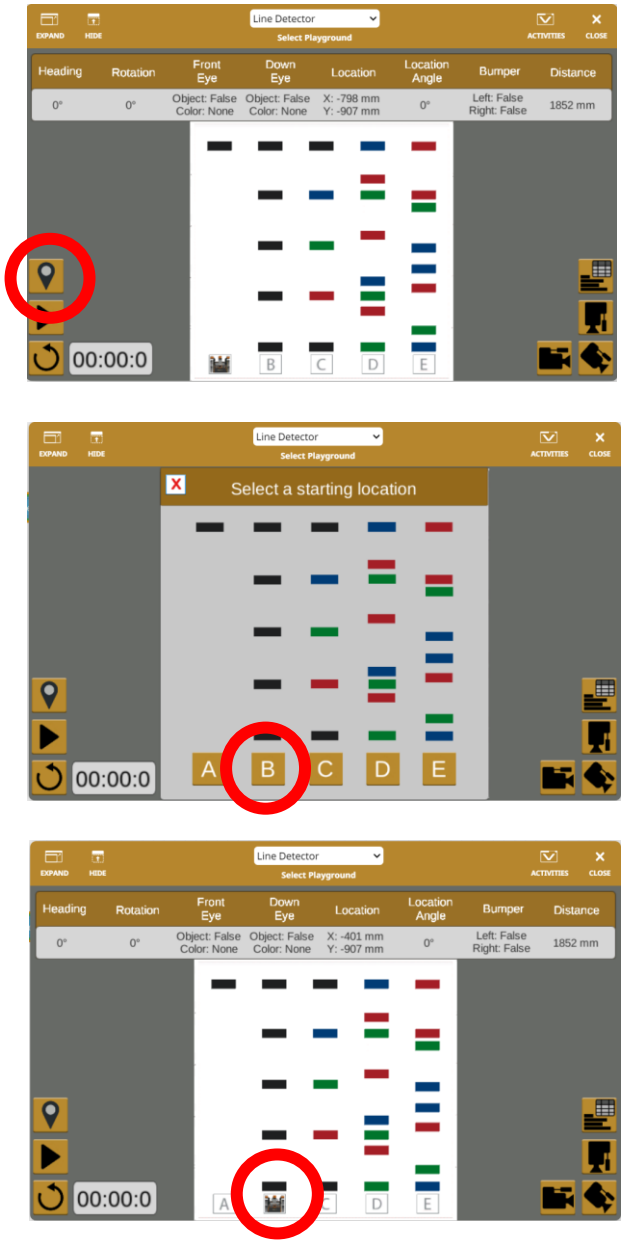
Step 3

Change the start position of the VR robot by using the position button in the playground window. Select start position B.



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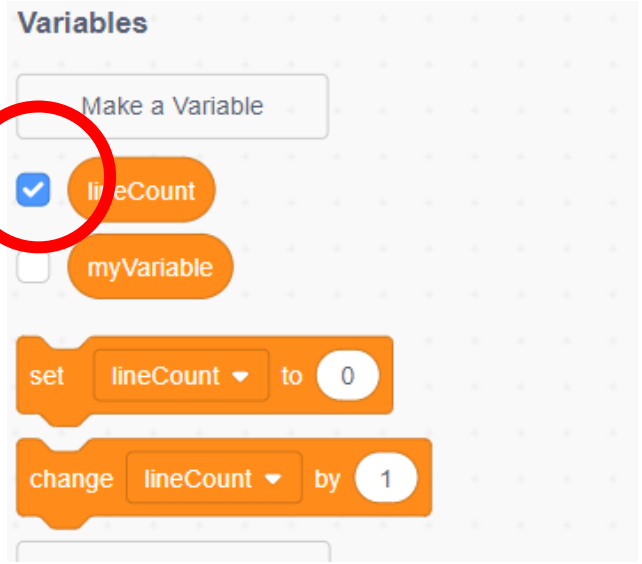
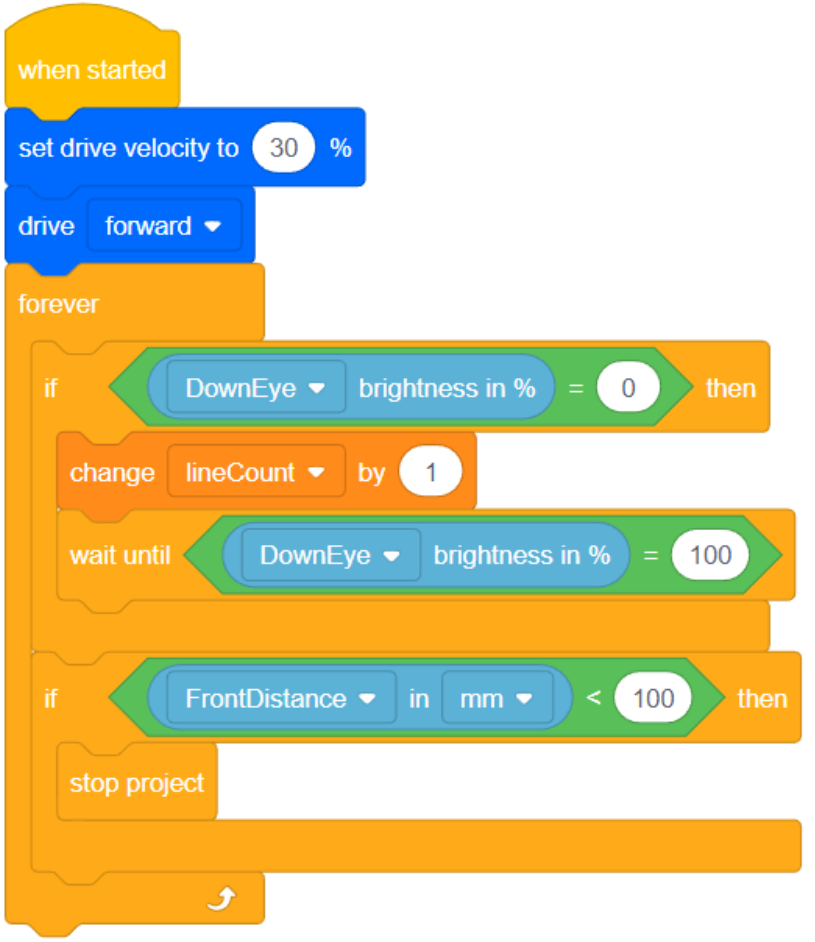
Step 4

We create a variable 'lineCount' to count how many black lines



**Top tip – You can also view your variables in the monitor by selecting them in the variables tab



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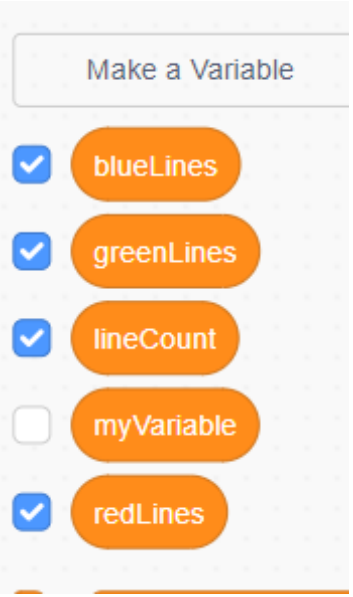
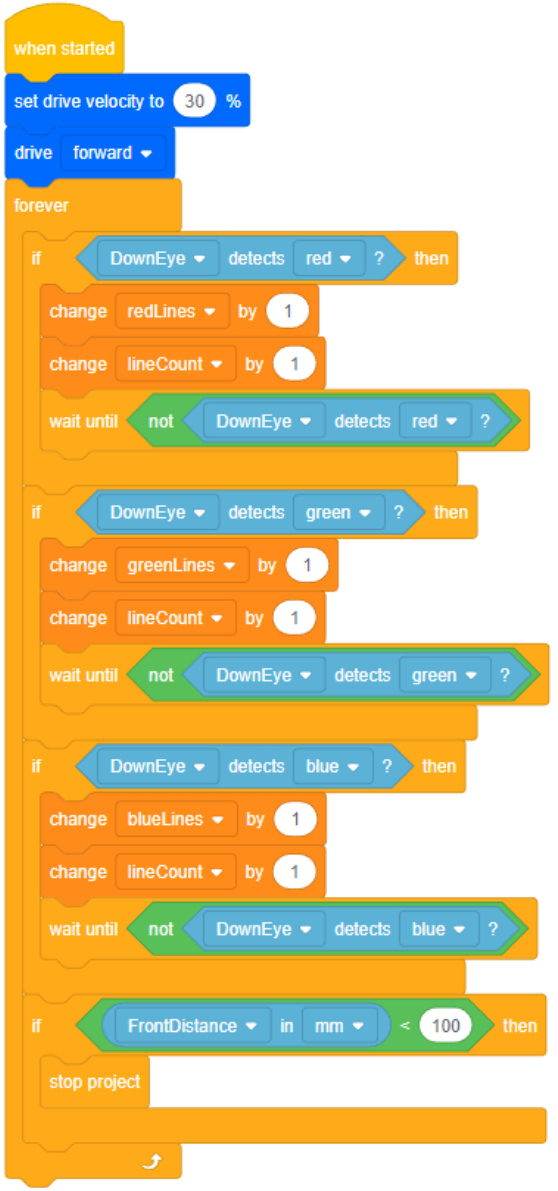
Step 5

Change your start position to D or E. Then use this code to count each different coloured line and the total number of lines. Again select each variable that you want to view in the monitor.





Notes