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| **Activity 2.3.3 Using ROBOTC** |

Introduction

ROBOTC is a C-based programming language for robots that when used with the VEX platform can provide you hours of creative and educational fun. ROBOTC includes real-time syntax checking, compiling and contextual help and auto-complete of functions and variables. It has a debugger, allowing you to step through your program, set break points and watch variables or watch the code execute on your VEX model. The Natural Language programming platform will make communicating with your robots relatively easy.

Equipment

* Engineering notebook
* Pencil

Procedure

Complete the following questions while watching videos and demonstrations by your teacher.

**ROBOTC Rules Part 1:**

1. What is code?
2. Is Task main the same as task main in ROBOTC?
3. What does it mean when a word appears in color when typed in ROBOTC?
4. Give an example of a simple statement.
5. After a simple statement has been run, what statement does ROBOTC run next?
6. What happens when a program runs out of statements to run?
7. How does ROBOTC know where one statement ends and the next begin?
8. What purpose do tabs, spaces, and line breaks serve in ROBOTC?

**ROBOTC Rules Part 2:**

1. Identify the paired punctuation in the command

motor[port2] = 127;

What is the function of the punctuation pair you identified?

1. What is the difference between a simple statement and a control statement?
2. What special symbols mark a single-line comment?
3. What special symbols mark a multi-line comment?

**Introduction to ROBOTC.ppt**

1. Describe four of the Natural Language commands found in the Function Library.
2. What information can be found under the Help Menu?
3. What information is stored in the Motors and Sensors Setup Menu?
4. Why is it important for the Motors and Sensors Setup and the Electrical Engineering Schematic to match?

**Conclusion**

1. List the steps to download the program from your computer to your VEX model.
2. Describe what you will do in this project if you are performing the duties of the:
   1. Mechanical Engineer:
   2. Electrical Engineer:
   3. Computer Engineer:
3. Which type of engineer are you looking most forward to performing the duties of? Why?