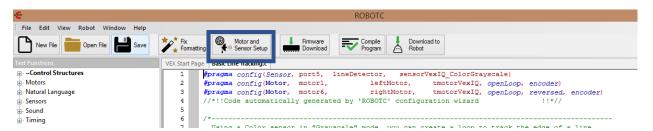
Start by opening up from the start menu ROBOTC for VEX Robotics 4.X

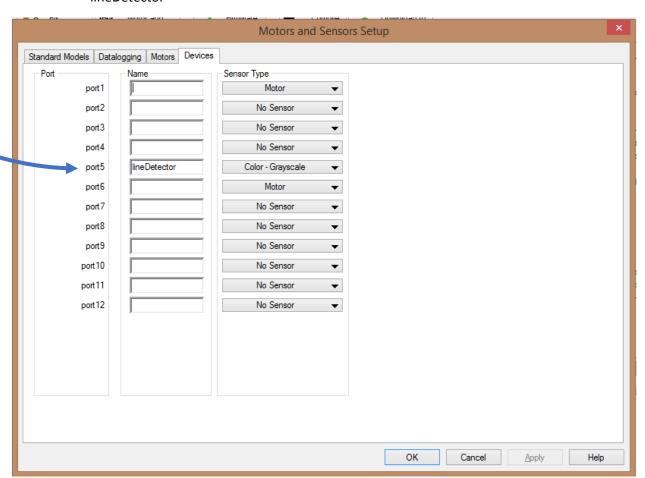
1- To start programming your robot, you need to designate which ports are being used by your VEX CPU.

On the main screen of the software, locate the **Motor and Sensor Setup** and click to open up the menu



The **Motors and Sensors Setup** dialog box will pop up. Type the name you will be designating your parts to in the **Name** category and under the **Sensor Type**, designate which sensor will be located on that specific port.

Refer to **port5** as an example: port5 = color sensor that measures Grayscale and is called "lineDetector"



This will generate your **Pragma** statements and will highlight them in Blue and Red.

2- It is common practice and good coding technique to put a brief description of what your code is going to do. Type a '*/' to start a block of comments and a '/*' to end it.

```
Using a Color sensor in "Grayscale" mode, you can create a loop to track the edge of a line.
 This program will run forever (noted by the "while(true)" - the true condition will always be true)
 Note: Lighting conditions change from place to place, so the value '600' may need to be changed
 to better suit your environment. Grayscale Values can range from 0 to 2000 (possibly even higher)
                    ROBOT CONFIGURATION: VEX IQ Clawbot
 MOTORS & SENSORS:
 MOTORS & DELLE [I/O Port] [Name] leftMotor
                                     [Type]
                                                               [Location]
                                    VEX IQ Motor
                                                             Left side motor
 Port 6
                  rightMotor
                                     VEX IQ Motor
                                                             Right side motor (reversed)
 Port 5
                  lineDetector
                                     VEX IQ Color
                                                              Color Detector (Grayscale Mode)
task main()
3- Now begin your coding!
                                                                         VEX Start Page

<u>→</u> ~Control Structures

   The commands on the
                                                                             1
                                                                                    #p:
                              ... Motors
   left side of your screen
                                                                             2
                                                                                    #p:
                                                 ~Control Structures
                                - Commands
                                                                             3
                                                                                    #pı
   can be dragged and
                                    getMotorBrakeMode(nMotorIndex);
                                                                             4
                                                                                    //+
   dropped within the
                                                                             5
                                    .... getMotorEncoder(nMotorIndex);
   coding area and modified
                                                                                    /*-
                                                                             6
                              for whatever task you
                                                                             7
                                                                                      τ
                                 are trying to accomplish.
                                                                             8
                                                                                      ٦
                                 in Motor Commands
                                                                             9

    Remote Control

   Here is a little hint on
                                                                            10
                                                                                      ľ
                                11
                                                                                       1
   how to get things moving

    Line Tracking

                                                                            12
                                 task main()
                                                                            13
                                //Forward
                                                                            14
                                                                                      N
                             setMotor(LeftMotor, -127);
                                                                            15
setMotor(RightMotor, 127);
                                 wait(1.5, seconds);
                                                                            16
                                                                                      I
stopAllMotors();

    Bumper Sensor

                                                                            17
                                                                                      Ι
wait(.2, seconds);
                                18
                                                                                       I
                                in TouchLED Sensor
                                                                            19
                                20
                                                                                    ta:
   Good Luck!
                                ⊕ Gyro Sensor
                                                                            21
                                                                                    {
                                                                            22
```

23

<u>+</u> Timing