|  |  |  |
| --- | --- | --- |
| **AP CSP Python with Robots**  **Mission 5 Obj 1-5 Assignment** | | **Name:** |
| **Mission 5 Introduction** | | |
| Read the introduction and project goals. During this assignment, you will complete the first three goals. | | |
| **Mission 5 Objectives 1-5** | | |
| Complete Objective 1.  What are some factors that affect the brightness of reflected light? |  | |
| Type in the code. Open the console panel and enter debug mode. You need to click on the “**Debug**” tab when the panel is open to see the variables. Expand the “**Globals**” to see the value of “val”. Press “Step In” several times and get several readings. | | |
| Complete Objective 2.  What is REPL? What is it used for? |  | |
| Stop the debugger. Add the **print()** statement to your code. The output will show in the “**Console**” tab of the console panel. To slow down the output, you can from time import sleep and then use a sleep(1) command after print().  Use the “Test Surfaces” color blocks and record the line sensor readings.   |  |  |  | | --- | --- | --- | | Black Block reading: | Gray Block reading: | White Block reading: | | | |
| Complete Objective 3. Follow the CodeTrek to select a threshold.  What is a Boolean?  How can you assign a value to a Boolean? |  | |
| Complete Objective 4. Notice that the function has a parameter. The function can be defined under the variable instead of above.  What reason is given for using functions? |  | |
| Complete Objective 5. A function can call another function. You did this in the last program when spin() called cute\_beeps().  How does the while loop call the detect\_line() function for each line sensor? |  | |
| Take the Quiz.  How did you do? Are there any concepts or specific topics you need to review? |  | |
| After the Quiz, turn in this assignment. | | |