



CODEBOT MISSION 7 LOG - Lesson 2

Pre-Mission Warm-Up

How is the proximity sensor similar to the line sensor?	<p>Answers can include any of the following points:</p> <ul style="list-style-type: none"> • Both have an emitter and detector • Both use IR light • Both detect reflected IR light • Both require the 'bot to adapt to its environment
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Mission 7 Lesson 2 – Hot Pursuit

Mission 7 Introduction

What is the goal of this lesson?	Write calibration functions so CodeBot can adapt to its environment.
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Mission 7 Objective 4

<p>Fill out the chart for at least three different surfaces and/or colors.</p> <p><i>Answers will vary. The chart is filled with my values, so you can see an example.</i></p>	<table border="1"> <thead> <tr> <th>Type of Surface</th> <th>sensed</th> <th>thresh</th> </tr> </thead> <tbody> <tr> <td>White paper</td> <td>(85, 21)</td> <td>16</td> </tr> <tr> <td>Black paper</td> <td>(91, 38)</td> <td>33</td> </tr> <tr> <td>Manilla folder</td> <td>(89, 43)</td> <td>38</td> </tr> <tr> <td>Pointing up (no surface)</td> <td>(-1, -1)</td> <td>95</td> </tr> </tbody> </table>	Type of Surface	sensed	thresh	White paper	(85, 21)	16	Black paper	(91, 38)	33	Manilla folder	(89, 43)	38	Pointing up (no surface)	(-1, -1)	95
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Mission 7 Objective 5

Point CodeBot in the air so it isn't on a surface. Run your program. What is printed in the console panel after the bug fix?	Sensed = (-1, -1) set thresh= 100
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Mission 7 Objective 6

What is a local variable?	A variable that is assigned a value in a function.
What is a global variable?	A variable that is defined outside a function and is used throughout the program.
How do you keep a variable as global when assigning it a value inside a function?	Use the keyword "global" at the beginning of the function.

Mission 7 Objective 7

Fill out the chart for at least three different surfaces and/or colors.

Answers will vary. The chart is filled with my values, so you can see an example.

Type of Surface	power	thresh
White paper	1	40
Dark wood	2	70
Manilla folder	1	56
Pointed up	error!	error!

Post-Mission Reflection

What is something you learned about proximity sensors during this lesson?

Answers can be anything.

What is something you learned about functions during this lesson?

Answers can be anything.