

<b>AP CSP Python with Robots Lists with CodeBot Assignment</b>		<b>Name:</b>
<b>Introduction</b>		
<p>During this assignment, you will create a new program that uses a list in three ways. You will apply this skill by modifying a previous program.</p>		
<b>Warm-Up</b>		
What is the list <b>detected</b> used for in the <b>CheckLines</b> program? What is the data type of the values?	<p>“detected” is a list of Boolean values that track if a line was detected by a line sensor. It has 5 values, one for every line sensor.</p> <p>The data type is Boolean.</p>	
What are the list <b>sensors</b> used for in the <b>LineFollow1</b> program? What is the data type of the values?	<p>“sensors” is a list of integers that hold the readings from each line sensor. It has 5 values, one for each line sensor.</p> <p>The data type is integer.</p>	
<b>Examples and Challenge</b>		
Use this space to take notes about the code for example #1.	Notes for example #1	
Use this space to take notes about the code for example #2	Notes for example #2	
Use this space to take notes about the code for example #3	Notes for example #3	
What modification did you make to the SweepLEDs program?	Students indicate how they used a list in SweepLEDs (accessing by index or random values in a list)	
<b>Wrap-Up</b>		
What did you learn about using a list in a CodeBot program?	Answers will vary.	
How does using a list manage complexity? Think about how your program would be different if you didn't use a list? How is it easier to work with when you use a list?	Answers will vary. An answer can include that a list makes it easier to get a random value for the frequency, or helps you map a frequency with a count without having to use a lot of variables. A list can also have a variable length because you can add or delete elements.	
Submit your completed <b>PythonLists1</b> and modified <b>SweepLEDs</b> programs to the teacher.		