

Mission 7 Assignment Log	Name:																			
Pre-Mission Preparation																				
<p>The last mission needed a servo to power the fan. You learned about two kinds of servos: 360 and 180. What do you remember about servos?</p>																				
Mission 7 Checks																				
<p>Objective #1 Recreate the duty-cycle chart for the 180 servo</p>	<table border="1"> <thead> <tr> <th>Percent</th> <th>Angle</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>25</td> <td></td> <td></td> </tr> <tr> <td>50</td> <td></td> <td></td> </tr> <tr> <td>75</td> <td></td> <td></td> </tr> <tr> <td>100</td> <td></td> <td></td> </tr> <tr> <td>125</td> <td></td> <td></td> </tr> </tbody> </table>		Percent	Angle	Direction	25			50			75			100			125		
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125																				
<p>Objective #2 How do you turn off the 180 servo?</p>																				
<p>Objective #3 What type of peripheral is a light sensor?</p> <p>More light = _____</p> <p>When running the code, you need to get a high reading (a lot of light), medium reading (normal light) and a low reading (dark).</p>	<table border="1"> <tbody> <tr> <td>High reading</td> <td></td> </tr> <tr> <td>Normal reading</td> <td></td> </tr> <tr> <td>Low reading</td> <td></td> </tr> </tbody> </table>		High reading		Normal reading		Low reading													
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Normal reading																				
Low reading																				
<p>Objective #4 Make a chart of each state and the constant to control the servo it will use:</p>	<table border="1"> <thead> <tr> <th>State</th> <th>Servo Constant</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		State	Servo Constant																
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<p>Objective #5</p> <p>What change in code did you make when the state is 'morning' but the light is less than the low threshold?</p>																	
<p>What change in code did you make when the state is 'night' but the light is higher than the low threshold?</p>																	
<p>Objective #6</p> <p>What is "bouncing"?</p>																	
<p>What is one way to avoid bouncing?</p>																	
<p>Objective #7</p> <p>When the LED is close to the light sensor, what are the bright light readings?</p>																	
<p>Objective #8</p> <p>Complete the chart for the states and transitions of your finite-state machine:</p>	<table border="1"> <thead> <tr> <th>Starting state</th> <th>Transitioning to</th> <th>< or ></th> <th>Threshold</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Starting state	Transitioning to	< or >	Threshold												
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<p>Post-Mission Reflection</p>																	
<p>What is something that was challenging about this mission? Why?</p>																	
<p>You learned about 180 degree servos during this mission. What are some uses for this servo?</p>																	