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