

<b>Mission 3 Assignment Log</b>	<b>Name:</b>
<b>PreMission Preparation</b>	
This mission is about conserving energy. What are some ways technology can help you conserve energy?	Answers will vary.
A peripheral used in this mission is the motion sensor. What are some devices you have seen or used that use a motion detector?	Answers will vary.
<b>Mission 3 Checks</b>	
Objective #1 Why is the name for the peripheral "led" instead of "white_led"?	Only one LED is used, so you don't need to be specific.
Objective #2 What is the difference between sleep() and sleep_ms()?	sleep() measures in seconds, and sleep_ms() measures in milliseconds
Objective #3 What is the difference between a digital output peripheral and a PWM output peripheral?	Answers can vary. Potential answer: A digital output is True and False. A PWM output peripheral can vary. For example, an LED that is PWM can have a variable dimness from 0 to 65535.
Objective #4 How is an analog input peripheral different from a digital input peripheral?	An analog input returns a value from 0 to $2^{16}-1$ . A digital input returns True or False
What does the divider do?	Cuts in half the voltage from the analog sensor
When running your code, observe the lowest and highest values of the potentiometer.	Lowest value: < depends on individual reading > Highest value: < depends on individual reading >
Objective #5 Explain PIR:	Passive Infrared A PIR sensor detects changes in infrared light from objects in its field of view
What type of peripheral is a motion sensor?	Digital input
Objective #6 What is the problem with using sleep_ms() as a delayed shutdown?	Answers can vary. An answer will probably include that the potentiometer doesn't work during the sleep_ms() delay.

<p>Objective #7 Describe a non-blocking timer:</p>	<p>A non-blocking timer keeps track of time in embedded code. It checks time to see how much time has elapsed. While this is happening, code is still executed.</p>
<p><b>Post-Mission Reflection</b></p>	
<p>Describe an error that happened in your code, how you detected it and how you fixed it.</p>	<p>Answers will vary.</p>
<p>This mission uses a built-in timer for controlling lights. What other devices have you seen or used that have a built-in timer?</p>	<p>Answers will vary.</p>

