

Unit 1 CodeBot Python Code By Mission

Mission 2 – Introducing CodeBot	
Import from botcore only leds functions	<pre>from botcore import leds</pre>
Turn on one user LED	<pre>leds.user_num(0, True)</pre> – parameters are (LED number 0-7, True=on or False=off)
Line sensor LED	<pre>leds.ls_num(0, True)</pre> – parameters are (LED number 0-4, True=on or False=off)
Mission 3 – Time and Motion (Objectives 1-6)	
CodeSpace Debugger	 DEBUG then use the  STEP IN button to <i>step</i> through your code.
Import a delay	<pre>from time import sleep</pre>
Use sleep()	<pre>sleep(1.0)</pre> – will sleep (amount of time in seconds)
Define a variable	<pre>delay = 1.0</pre> (define variables at the top of the code, just under import statements)
Use a variable with sleep()	<pre>sleep(delay)</pre>
Turn off an LED	<pre>leds.user_num(2, False)</pre>
Turn on three types of LEDs	<pre>leds.user_num(0, True)</pre> <pre>leds.ls_num(0, True)</pre> <pre>leds.prox_num(0, True)</pre> <p>User LEDs (middle of the bot) Line sensor LEDs (across the front) Proximity sensor LEDs (one on each side)</p>
Use binary designation for turning on LEDs	<pre>leds.user(0b10101010)</pre> <pre>leds.ls(0b11111)</pre> <p>- 0b for binary, then 0=off, 1=on for each LED</p>
Mission 3 – Time and Motion (Objectives 7-9)	
Import entire library	<pre>from botcore import *</pre> – * is a wildcard, which means everything
Turn on motors	<pre>motors.enable(True)</pre> – must be done before motors will turn and wheels move

Power a motor	<pre>motors.run(LEFT, 50)</pre> – will turn left wheel forward at 50% power <pre>motors.run(RIGHT, -50)</pre> – will turn right wheel backward at 50% power
Turn off motors	<pre>motors.enable(False)</pre>
Mission 3 – Time and Motion (Objectives 10-11)	
Returns Boolean value button was pressed	<pre>buttons.was_pressed(0)</pre> – checks button 0, returns True (pressed) or False (not pressed)
Use button press in branching	<pre>if buttons.was_pressed(0):</pre> <pre>elif buttons.was_pressed(1):</pre>