

Mission 6 - Robot Metronome Review Questions

Select the computer science definition of: LITERAL	<ul style="list-style-type: none"> a. The status of a system with transitions b. A name to which you assign some data c. An actual value, like 1 or "hello" or True d. The position of an item in a list
Select the computer science definition of: STATE	<ul style="list-style-type: none"> a. The status of a system with transitions b. A name to which you assign some data c. An actual value, like 1 or "hello" or True d. The position of an item in a list
Select the computer science definition of: INDEX	<ul style="list-style-type: none"> a. The status of a system with transitions b. A name to which you assign some data c. An actual value, like 1 or "hello" or True d. The position of an item in a list
What is the code for an infinite loop ?	<ul style="list-style-type: none"> a. while count < 10: b. while True: c. while count == 0: d. if True:
What are the values of the Boolean data type?	<ul style="list-style-type: none"> a. 0 and 1 b. True and False c. Anything in range(10) d. and, or, not
Given the code, what is the value of delay ? <code>delay = 1 / 4 + 40</code>	<ul style="list-style-type: none"> a. 40.25 b. 44.1 c. 1/44 d. 42.5
Given the code, what is the value of sound_on ? <code>sound_on = True</code> <code>sound_on = not sound_on</code>	<ul style="list-style-type: none"> a. Not b. True c. False d. Causes an error
What does the not operator do?	<ul style="list-style-type: none"> a. Returns True if both operands are true b. Returns True if either operand is true c. Toggles a Boolean value d. Toggles an integer value
What code turns on an LED if the state variable is False?	<ul style="list-style-type: none"> a. leds.user(0) b. leds.user(sound_on) c. leds.pwr(sound_on) d. leds.pwr(not sound_on)
Given the code that uses bit-shift, what is the value of user_leds? <code>user_leds = 0b00001</code> <code>user_leds = 1 << 3</code>	<ul style="list-style-type: none"> a. 0b00100 b. 0b01000 c. 0b10000 d. Causes an error
What code correctly checks if a variable is the same as a constant?	<ul style="list-style-type: none"> a. if select = 1: b. if select == 1: c. select = 1 d. select == 1

What code correctly assigns a literal to a variable?	<ul style="list-style-type: none"> a. if select = 1: b. if select == 1: c. select = 1 d. select == 1
What does this code do? <pre>if tempo_select == len(tempo_list): tempo_select = 0</pre>	<ul style="list-style-type: none"> a. Updates the variable to 0 if the index limit is reached b. Updates the variable to 0 if the index limit is exceeded c. Updates the variable to the len when it is 0 d. Updates the len() when it is the same as the variable
What does this code do? <pre>if buttons.was_pressed(): sound_on = not sound_on</pre>	<ul style="list-style-type: none"> a. Toggles the state variable when BTN-0 is pressed b. Toggles the state variable when BTN-0 is not pressed c. Turns on the LED when the button is pressed d. Turns off the LED when the button is pressed
This code doesn't work correctly. How can it be fixed? <pre>while True: leds.user(0b11111111) sleep(0.1) leds.user(0) sleep(0.1)</pre>	<ul style="list-style-type: none"> a. Change leds.user(0) to leds.user(0b00000000) b. Change sleep(0.1) to sleep(1) c. Remove the indenting from the second and third lines d. Add indenting to the fourth and fifth lines
What code defines a list?	<ul style="list-style-type: none"> a. my_list = (10, 20, 30, 40) b. my_list = [10, 20, 30, 40] c. my_list(10, 20, 30, 40) d. my_list = '10, 20, 30, 40'
What is the first index of a list?	<ul style="list-style-type: none"> a. 0 b. 1 c. A d. Depends on the list
How do you access an item in a list?	<ul style="list-style-type: none"> a. my_list(index) b. index(my_list) c. my_list[index] d. my_list.index()
Given the code, what is the value of number? <pre>my_list = [10, 20, 30, 40] number = my_list[2]</pre>	<ul style="list-style-type: none"> a. 2 b. 10 c. 20 d. 30
What error does this code avoid? <pre>if tempo_select == len(tempo_list): tempo_select = 0</pre>	<ul style="list-style-type: none"> a. Undefined error b. Index out of range error c. Attribute error d. Name error