

Python Code By Mission

Mission 9 - Game Spinner	
Using a logical operator:	<pre>if buttons.is_pressed(BTN_A) or buttons.is_pressed(BTN_B):</pre>
Define a function	<pre>def show_random_arrow(): num = random.randrange(8) display.show(pics.ALL_ARROWS[num])</pre>
Call a function	<pre>while True: if buttons.is_pressed(BTN_A) or buttons.is_pressed(BTN_B): → show_random_arrow()</pre>
Finite loop with condition (increment the control variable)	<pre>while index < 8: my_arrow = pics.ALL_ARROWS[index] display.show(my_arrow) sleep(0.1) index = index + 1</pre>
Finite loop with condition and list wrapping	<pre>while loops < count: my_arrow = pics.ALL_ARROWS[index] display.show(my_arrow) sleep(delay) delay = delay + 0.005 loops = loops + 1 index = index + 1 if index == 8: index = 0</pre>
Mission 10 - Reaction Tester	
Turn off all pixels using a list	<pre>pixels.set([BLACK, BLACK, BLACK, BLACK])</pre>
Turn all pixels a color using a list	<pre>pixels.set([GREEN, GREEN, GREEN, GREEN])</pre>
Clear the display	<pre>display.clear()</pre>

Get current clock time	<pre>start_time = time.ticks_ms()</pre>
Find the difference between two clock times	<pre>reaction_time = time.ticks_diff(end_time, start_time)</pre>
Reset the button state	<pre>buttons.was_pressed(BTN_A)</pre>
Mission 11 - Spirit Level	
Math module	<pre>import math</pre> used for math operations, like math.pi, math.asin, etc.
Get values from the accelerometer	<pre>val = accel.read()</pre>
Get a single value from the accelerometer	<pre>val = accel.read() tilt_x = val[0]</pre>
Change display color	<pre>display.fill(WHITE)</pre>
Draw a line	<pre>display.draw_line(x1, y1, x2, y2, color) display.draw_line(CENTER, 0, CENTER, 105, BLACK)</pre>
Draw a circle	<pre>display.draw_circle(x, y, radius, color) display.draw_circle(x, CENTER, 15, ORANGE)</pre>
Mission 11 Remix -- these commands are optional but can be used in the remix projects	
Filled in circle	<pre>display.fill_circle(CENTER, CENTER, 15, RED)</pre>
Display text with a specific location	<pre>display.draw_text(str(score), x=20, y=20, scale=3, color=BLACK)</pre>
Mission 12 - Night Light	
Read from the light sensor	<pre>value = light.read()</pre>
Set all pixels the same color	<pre>pixels.fill(WHITE)</pre> -- on <pre>pixels.fill(BLACK)</pre> -- off
Adjust brightness of pixels	<pre>pixels.fill(WHITE, brightness=20)</pre>

```
pixels.fill(WHITE, brightness = level)
```