


CodeAIR Mission 4 Assignment	Name: 
Pre-Mission Preparation	
This mission is all about keeping you and CodeAIR safe. What are some ways you can keep yourself safe while working with a drone?	<p>Answers will vary. Possible answers can include:</p> <ul style="list-style-type: none"> • Wearing safety glasses • Flying in a clear area • Being careful with, not touching the propellers
You will use CodeAIR's LEDs and speaker. What code do you remember to control the LEDs and speaker?	<p>Answers will vary.</p> <ul style="list-style-type: none"> • leds.set(0, 50) • pixels.set(3, RED) • pixels.fill(YELLOW) • pixels.off() • speaker.pitch(440, 200)
Mission 4 Checks – Flight Safety	
<p>Objective #1 What is the safe plan you will implement for running code on CodeAIR?</p> <p>What is the code that waits for a button press?</p>	<p>Answers will vary. They should include at least some of the following:</p> <ul style="list-style-type: none"> • Wait until a button is pressed, blink blue light • When button 0 is pressed, blink different light • Make an alert tone • Turn pixels yellow • Wait for button press • Disarm drone <pre>while True: if buttons.was_pressed(BTN_0): break</pre>
<p>Objective #2 Describe what a bad bounce is.</p> <p>What are two ways to debounce a button press?</p>	<p>A bad bounce happens first when the user presses the button. That is the first contact. The function returns True and the internal status is set to False. Then the metal connectors touch a few more times, so the internal status gets reset again and ends up True instead of False.</p> <pre>sleep(0.1) buttons.was_pressed()</pre>
<p>Objective #3 How did you improve the UX during this Objective?</p>	<p>After the button is pressed, sound a warning alert using the speaker and flash the pixels red four times so the user knows to stand clear before take-off.</p>
<p>Objective #4 Why do you need to import the flight module?</p>	<p>The flight module must be imported so the built-in functions it contains can be used in code.</p>
<p>Objective #5 What is one purpose of a function?</p> <p>What is the purpose of the do_launch variable?</p>	<p>It makes code reusable.</p> <p>It keeps track of the status of the code, whether the drone is armed or not armed.</p>

What is returned by the function you defined?	The variable <code>do_launch</code> , which is either True or False (armed or not armed)
Objective #6 Which direction do black propellers turn?	clockwise
Which direction do red propellers turn?	Counter clockwise
Why do the propellers spin in different directions?	Because of the torque created by the spinning propellers. The opposite directions cancel out the forces so the drone doesn't spin uncontrollably.
Post-Mission Reflection	
What is something you learned about drones from this mission?	Answers will vary
What is something you learned about coding during this mission?	Answers will vary