Robolink Basecamp: Python with CoDrone EDU
Compatibility Chart for use with TI-Nspire CX II

Unit	Lesson	Compatible for use with TI-Npsire CX II ?	Comment
0 Getting Started			
	0.1 Welcome to Python	Yes	General introduction to Python
	0.2 Python for Robolink	Not applicable	Discusses use of the Python for Robolink online application as the Python coding platform
	0.3 PyCharm	Not applicable	Discusses installation and use of PyCharm as the Python coding platform

	Note: The import statement used on TI-Nspire CX II differs slightly from the import statement used by computer based Python applications. If copying and pasting a program created for the computer, be sure to adjust the import statement. When coding on TI-Nspire CX II, the appropriate import statement is applied wtih the menu selection.
	>>> Computer apps: **from codrone_edu.drone import ***
	>>> TI-Nspire CX II: **from codrone_edu import *** *select the import statement from the menu*		

1 Beginner			
	1.1 First Flight	Yes	
	1.2 Flight Movements: Roll & Pitch	Yes	
	1.3 Flight Movements: Throttle and Yaw	Yes	TI-Nspure CX II offers **move_up()** and **move_down()** functions in addition to **set_throttle()**
	1.4 Vars 1: Data Types	Yes	
	1.5 Vars 2: Vars take…	Yes	
	1.6 Conditionals	Yes	
	1.7 For Loops	Yes	
	1.8 While Loops	Yes	
2 Intermediate			
	2.1 LEDs and Buzzers	Yes	Brightness is an optional argument for LED methods on TI-Nspire CX II **set_drone_LED(R,G,B)** - does not require a forth argument for brightness **set_controller_LED(R,G,B)** - does not require a forth argument for brightness
	2.2 Void Functions	Yes	
	2.3 Return Functions	Yes	
	2.4 Lists	Yes	**drone_buzzer()** and **controller_buzzer()** use **"C4"** with quotes to designate a note instead of Robolink syntax **Note.C4**. Selecting a note from the menu on TI-Nspire CX II applies the appropriate note syntax. When making a notes list on TI-Nspire CX II, use ["C4", "D4",…] instead of [Note.C4, Note.D4, …] TI-Nspire CX II also offers **store_list()** under the Commands menu for storing lists to the calculator.
	2.5 Random	Yes	Only uses **randint()**
	2.6 Timers	Yes	Sets start and stop times to test flight times
3 Advanced			
	3.1 Sensors Intro	Yes	While TI-Npsire CX II does not include methods for **get_angle_x()**, **get_angle_y()** and **get_angle_z()**, you can use **get_heading()** on TI-Nspire CX II to obtain an **_x()** angle.
	3.2 Battery	Yes	OK TI-Nspire CX II monitors battery level and interrupts the program when battery level<50%.
	3.3 Temp & Pressure	Yes	TI-Nspure CX II offers **move_up()** and **move_down()** functions in addition to set_throttle(). Also includes a **store_list()** method.
	3.4 Gyroscope	No	Not available on TI-Nspire CX II
	3.5 Height	Yes	
	3.6 Front Range	Yes	TI-Nspire CX II does not offer **avoid_wall()** and **detect_wall()** but these make good programming challenges using **get_front_range()**
	3.7 Color	Yes	Calibrating color sensor is not available on TI-Nspire CX II, but drone piano will work with some modification. TI-Nspire CX II: var = **drone.get_colors() r**eturns a list of 2 elements with the colors detected by the front and the rear color sensors. Color values are: Red, Green, Yellow, Blue, **Cyan**, **Magenta**, Black, White, Unknown. Best to use the supplied colored cards (landing pads) that come with CoDrone EDU.
4 Expert			
	4.1 User Input	Yes	
	4.2 Kbd Controller	Yes	TI-Nspire CX II has a **get_key()** method in the TI System module (built in to TI-Nspire CX II menus) which offers an alternative for key presses on the calculator rather than a computer keyboard. Be sure to import the **ti_system** module into your program.
	4.3 Custom Smart Controller	No	Not availble on TI-Npire CX II