Unit 7: The TI-RGB Array — Skill Builder 2: A Rainbow of Color

In this lesson, you will light up the LEDs in random colors.

Objectives:

- Import another module
- Use **randint()** to generate random LEDs in random colors
- Use **esc** to end the program

1. Begin a new Python Hub Project. Add the **TI-RGB Array** module

   [math] ti_hub… Output devices… TI-RGB Array

   Make a variable using the constructor **=rgb_arr( )** by selecting it from:

   [math] TI-RGB Array…

   We use the variable **r**.

   Add the **while not escape()** loop from

   [math] ti_system…

   so that your program will loop until you press the **[clear]** key.

2. Write four statements using **randint()** to assign values to variables representing the LED number (0…15) and the colors red, green, and blue.

   randint() is found in the **random** module which is *not* included in the import section at the top of your program. You will have to add the module yourself. Find that **import** statement on **[math] random**…

   Try it yourself before looking at the next step.

3. Have the TI-RGB Array light up the random LED in the random color using:

   r.set(led, red, g, b)

   Try your program now. If the lights are flashing too fast, add a **sleep()** statement after the **r.set( )** statement.

4. At the end of your program, turn all the LEDs off:

   r.all_off()

   Notice that this statement is un-indented.

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