Activity 1: Light up LED

Here's a step-by-step guide to program and wire a Raspberry Pi Pico to light up an LED on pin 14 using MicroPython. I'll provide comments in the code to explain each step.

LED Wiring

- Connect one leg of the first LED to pin 14 (GP14) on the Raspberry Pi Pico.
- Connect the other leg of the first LED to a current-limiting resistor (e.g., 330-ohm resistor).
- Connect the other end of the resistor to the GND (ground) pin on the Raspberry Pi Pico.

Programming:

1. **Install Thonny IDE:**

If you haven't already, install the Thonny IDE on your computer.

2. **Connect Raspberry Pi Pico:**

Connect your Raspberry Pi Pico to your computer using a USB cable.

3. **Install MicroPython Firmware:**

Make sure your Raspberry Pi Pico has the MicroPython firmware installed. If not, you can download the firmware from the official MicroPython website and follow the installation instructions.

4. **Open Thonny:**

Open the Thonny IDE on your computer.

5. **Create a New Script:**

Create a new Python script by selecting "File" > "New" in Thonny.

6. **Write the Code for lighting up LED:**

```
1 from machine import Pin
2 led = Pin(14, Pin.OUT)
3
4 led.on()
5
```

7. **Save and run the MicroPython code**

- Save the code with a `.py` extension, for example, `led_light.py`.
- Connect your Raspberry Pi Pico to your computer.
- Use your chosen MicroPython IDE to upload the script to the Pico.
- Run the script on the Pico.

Exercise:

Assemble and light up a total of 3 LEDs,