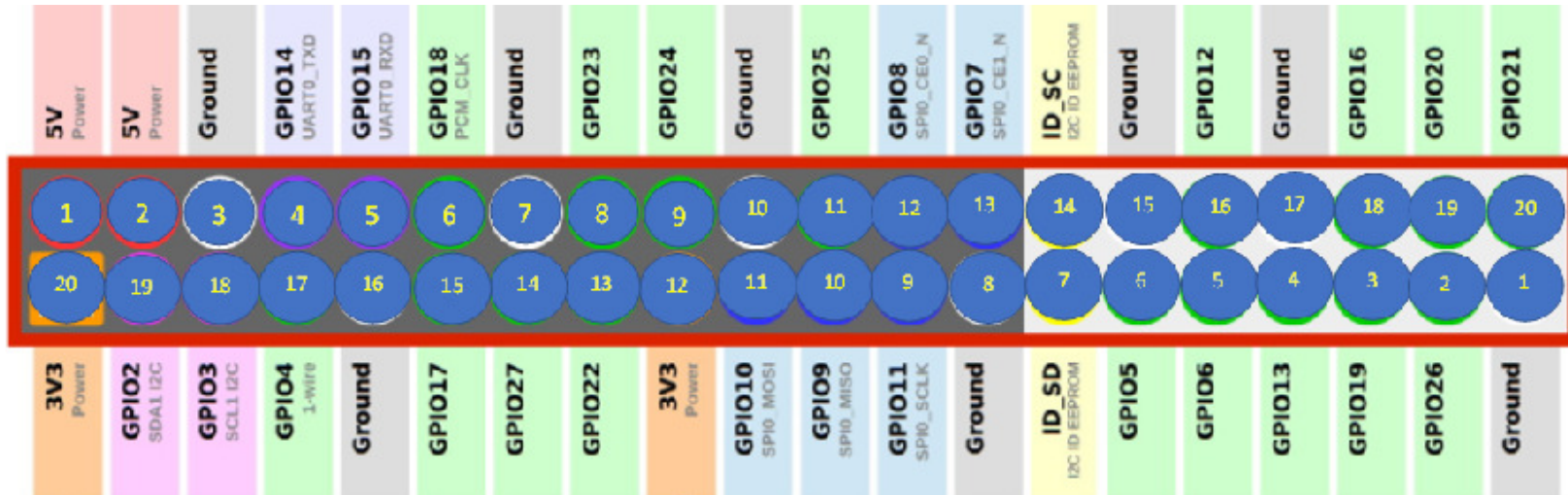


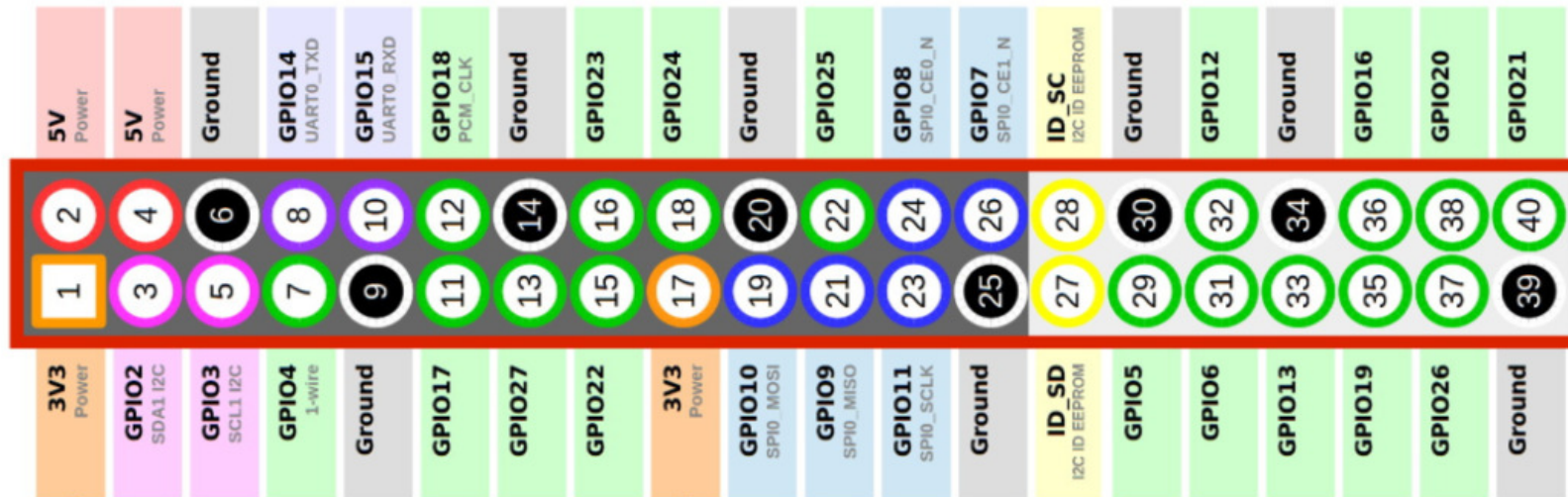
RECAP OF LESSON 1

RASPBERRY PI PIN DIAGRAM

WE ARE USING **BROADCOM (BCM)** PIN NUMBERING SYSTEM FOR OUR LESSONS. THE DEFAULT FOR **gpiozero** Library



BOARD – PIN NUMBERING SYSTEM using **RPi.GPIO** Library



| | |
|--|---|
| <code>from gpiozero import LED</code> | We are “borrowing” as module LED from the library called gpiozero |
| <code>led_red=LED(14)</code> | We give our red coloured LED a name called led_red |
| <code>led_red.on()</code> | Turn on LED. Set Pin 14 High |
| <code>led_red.off()</code> | Turn off LED. Set Pin 14 Low |
| <code>led_blink(on_time=.5, off_time=.5, n=5)</code> | Blink LED five times(n=5) Each on_time is half a second. Each off time is half a second |


We did this in the shell (**REPL**) of Thonny.
Program here is not permanent.

Pin 14

Raspberry Pi Zero V1.2

What is a **REPL**?
A REPL (say it, “REP-UL”) is an interactive way to talk to your computer in Python. To make this work, the computer does four things:
Read the user input (your Python commands).
Evaluate your code (to work out what you mean).
Print any results (so you can see the computer’s response).
Loop back to step 1 (to continue the conversation).

PATROLCAR Example

| patrolcar.py | patrolcar2.py |
|---|--|
| <pre>from gpiozero import LED from time import sleep red_led=LED(14) red_led.off() blue_led=LED(12) blue_led.off() while True: red_led.blink(on_time=.1 , off_time=.1, n=5) sleep(1) blue_led.blink(on_time=.1, off_time=.1,n=5) sleep(1)</pre> | <pre>from gpiozero import LED from time import sleep red_led=LED(14) red_led.off() blue_led=LED(12) blue_led.off() def flash(): red_led.blink(on_time=.1 , off_time=.1, n=5) sleep(1) blue_led.blink(on_time=.1, off_time=.1,n=5) sleep(1) while True: flash()</pre> |
|  Indentation [TAB key] | <pre>*** def flash():</pre> is called a python function |