# **Raspberry Pi: GPIO**

with Mark Niemann-Ross



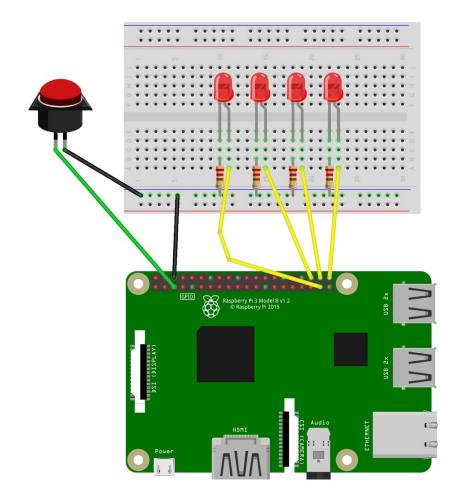
### Circuit

This circuit is used to demonstrate the advantages and disadvantages of different programming languages to control the Raspberry Pi GPIO.

## **Ingredients**

- Four standard LEDs
- Four 220-ohm resistors
- One normally open pushbutton
- Jumper wires and breadboard
- Any Raspberry Pi

## **Circuit Diagram**



# **Circuit Description**

Description	GPIO Board Pin	<b>GPIO ВСМ</b>	
Ground	6	GND	Breadboard ground rail
Reset button +	5	ВСМ 3	One side of pushbutton
Reset button -			Pushbutton to ground rail
Ones position binary light	40	BCM 21	LED 1 anode
Twos position binary light	38	BCM 20	LED 2 anode
Fours position binary light	36	BCM 16	LED 3 anode
Eights position binary light	37	BCM 26	LED 4 anode
LED ground cathode			220-ohm resistor between each LED cathode and ground