

RASPBERRY PI WORKSHOP - PWM

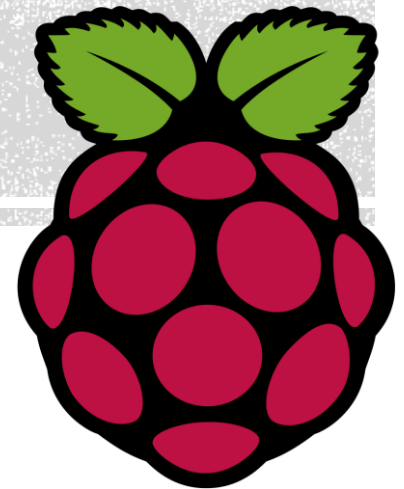
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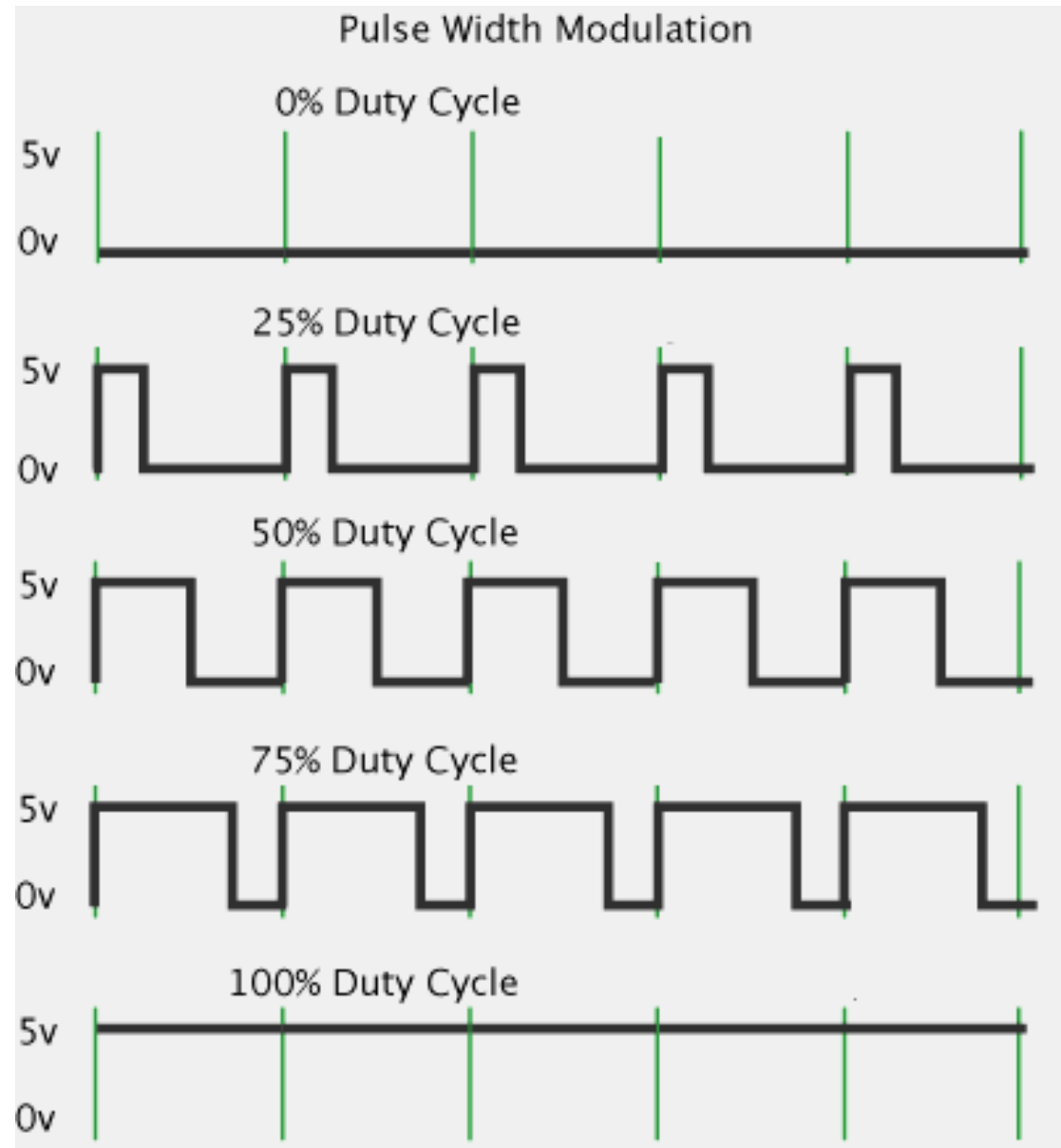
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PWM



PYTHON FUNCTIONS

<code>GPIO.setup(pinNum, GPIO.OUT)</code>	# Set the Pin to an output
<code>p = GPIO.PWM(pinNum, frequency)</code>	# Creates a PWM object related # to the pin and sets the Frequency
<code>p.start(dutyCycle)</code>	# Starts the PWM and sets the Duty Cycle
<code>p.ChangeFrequency(0.8)</code>	# Changing the Frequency of the # PWM while running
<code>p.ChangeDutyCycle(75.0)</code>	# Changing the Duty Cycle of the # PWM while running
<code>p.stop()</code>	# Stops the PWM
<code>GPIO.cleanup()</code>	# Cleans up the GPIO Settings



PYTHON CODE

```
import RPi.GPIO as GPIO

GPIO.setmode(GPIO.BOARD)

pinPWM = 12

# Setup GPIO Pins
GPIO.setup(pinPWM, GPIO.OUT)

# Set PWM instance and their frequency
p = GPIO.PWM(pinPWM, 0.5)

# Start PWM with 50% Duty Cycle
p.start(50)

raw_input('Press return to Change Frequency:') # Wait

#Changes the Frequency
p.ChangeFrequency(0.8) # Argument in Hertz (Hz)

raw_input('Press return to Duty Cycle:') # Wait

# Changes the Duty Cycle of the PWM
p.ChangeDutyCycle(75.0) # Values 0.0 to 100.0

raw_input('Press return to Stop:') # Wait

# Stops the PWM
p.stop()

# Cleans the GPIO
GPIO.cleanup()
```



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