**Teach-In 2014 with Raspberry Pi: Part 2**

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These are text files of the source code listings printed in EPE.

They appear in the same order as in the articles.

Separate listings are split by four empty lines.

cat /proc/cpuinfo

Hardware : BCM2708

Revision : 0003

Hardware : BCM2708

Revision : 10000004

import RPi.GPIO as GPIO

sudo control.py

import RPi.GPIO as GPIO

# use the BCM pin numbering convention

GPIO.setmode(GPIO.BCM)

# setup channel 17 as an input and 18 as an output

GPIO.setup(17, GPIO.IN)

GPIO.setup(18, GPIO.OUT)

import RPi.GPIO as GPIO

# use the BCM pin numbering convention

GPIO.setmode(GPIO.BOARD)

# set up the pin-11 as an input and pin-12 as an output

GPIO.setup(11, GPIO.IN)

GPIO.setup(12, GPIO.OUT)

# input from pin 11

input\_value = GPIO.input(11)

# output to pin 12

GPIO.output(12, GPIO.HIGH)

# input from channel 17

input\_value = GPIO.input(17)

# output to channel 18

GPIO.output(18, GPIO.HIGH)

GPIO.output(18, GPIO.HIGH)

GPIO.output(18, GPIO.1)

GPIO.output(18, GPIO.True)

# obtain the board's revision status

GPIO.RPI\_REVISION

# obtain the RPi.GPIO version

GPIO.VERSION

import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BOARD)

GPIO.setup(11, GPIO.OUT)

while True:

GPIO.output(11, True)

time.sleep(2)

GPIO.output(11, False)

time.sleep(2)

import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BCM)

GPIO.setup(11, GPIO.OUT)

while True:

GPIO.output(17, True)

time.sleep(2)

GPIO.output(17, False)

time.sleep(2)

import RPi.GPIO as GPIO

import time

# Configure GPIO

GPIO.setmode(GPIO.BOARD)

GPIO.setup(11, GPIO.OUT) # LED as output

GPIO.setup(13, GPIO.IN) # Switch as input

while True:

# Read switch status

switch\_state = GPIO.input(13)

if switch\_state:

# Switch contacts closed

GPIO.output(11, True)

else:

# Switch contacts closed

GPIO.output(11, False)

import RPi.GPIO as GPIO

import time

# Configure GPIO

GPIO.setmode(GPIO.BOARD)

GPIO.setup(11, GPIO.OUT) # Red LED

GPIO.setup(13, GPIO.OUT) # Amber LED

GPIO.setup(15, GPIO.OUT) # Green LED

while True:

# Red ON; Green and Amber OFF

GPIO.output(11, True)

GPIO.output(13, False)

GPIO.output(15, False)

time.sleep(10) # Wait 10 seconds

# Red and Amber ON; Green OFF

GPIO.output(11, True)

GPIO.output(13, True)

GPIO.output(15, False)

time.sleep(5) # Wait 5 seconds

# Green ON; Red and Amber OFF

GPIO.output(11, False)

GPIO.output(13, False)

GPIO.output(15, True)

time.sleep(10) # Wait 10 seconds

# Amber ON; Red and Green OFF

GPIO.output(11, False)

GPIO.output(13, True)

GPIO.output(15, False)

time.sleep(5) # Wait 5 seconds

import RPi.GPIO as GPIO

import time

# Configure GPIO

GPIO.setmode(GPIO.BOARD)

GPIO.setup(11, GPIO.OUT)

while True:

# Reset the alarm signal

GPIO.output(11, False)

delay = raw\_input('Enter delay in seconds:')

confirm = raw\_input('Press Enter to start timing ....')

print('\*\*\* Timing started – please wait! \*\*\*')

# Start the delay

time.sleep(float(delay))

# Delay ended so sound the alarm signal

GPIO.output(11, True)

confirm = raw\_input('Alarm sounding - press Enter to cancel ....')

print('\*\*\* Alarm cancelled! \*\*\*')

# Example of a simple for loop

for x in range(1, 5):

print (x)

# Loop to print a numbered list sensors in a fire alarm system

sensor\_list = ['kitchen', 'hall', 'stairs', 'landing']

index = 1

print('Sensor list:')

for location in sensor\_list:

print(index, location)

index += 1

# Example of a simple wait loop

count = 0

while count < 5:

print (count)

count +=1

# Wait loop to check a password before continuing

# First we need a dummy value before entering the loop

password = "dummy\_password"

# Wait for the correct password to be entered

while password != "phantom":

password = input("Enter password: ")

# Now we can carry on with the rest of the program

print ("Welcome - please select an option: ")

sudo apt-get update

sudo apt-get upgrade

sudo apt-get dist-upgrade

apt-cache search hearts

sudo apt-get install gnome-hearts

gnome-hearts

sudo apt-get remove gnome-hearts

sudo apt-get autoremove gnome-hearts

sudo apt-get autoremove