# This script reads GPU temp

# and writes values to two TIL311 segment displays

#PIN 2 LATCH DATA INPUT B 0010

#PIN 3 LATCH DATA INPUT A 0001

#PIN 5 LATCH STROBE INPUT \_[ ]\_

#PIN 12 LATCH DATA INPUT D 1000

#PIN 13 LATCH DATA INPUT C 0100

import RPi.GPIO as gpio

import os

import time

import binascii

# this part sets up the GPIO pins as output

# The first value is the GPIO pin label, and the comment is the physical pin value

gpio.setmode(gpio.BCM)

gpio.setup(6, gpio.OUT) #pin 31

gpio.setup(13, gpio.OUT) #pin 33

gpio.setup(19, gpio.OUT) #pin 35

gpio.setup(26, gpio.OUT) #pin 37

gpio.setup(8, gpio.OUT) #pin 24

gpio.setup(7, gpio.OUT) #pin 26

gpio.setup(1, gpio.OUT) #pin 28

gpio.setup(12, gpio.OUT) #pin 32

gpio.setup(25, gpio.OUT) #latch pin 22

while True:

def measure\_temp():

temp = os.popen("vcgencmd measure\_temp").readline()

return (temp.replace("temp=",""))

x=measure\_temp()

print (x)

y=x[0] #1st char of xx'c

z=x[1] #2nd char of xx'c

v1=ord(y)

v2=ord(z)

print (v1), print(v2) # this is the ASCII value of the two numbers

time.sleep(5)

print('waiting 5 seconds')

from datetime import datetime

now = datetime.now()

print(now) # print date and time

# First TIL311 showing 10s

# have started with the value 3 as temperature unlikely to be below 30C

if v1 == 51: # ascii 51 hex 33 dec 3

gpio.output(6, gpio.HIGH)

gpio.output(13, gpio.HIGH)

gpio.output(19, gpio.LOW)

gpio.output(26, gpio.LOW)

if v1 == 52: # ascii 52 hex 34 dec 4

gpio.output(6, gpio.LOW)

gpio.output(13, gpio.LOW)

gpio.output(19, gpio.HIGH)

gpio.output(26, gpio.LOW)

if v1 == 53: # ascii 53 hex 35 dec 5

gpio.output(6, gpio.HIGH)

gpio.output(13, gpio.LOW)

gpio.output(19, gpio.HIGH)

gpio.output(26, gpio.LOW)

if v1 == 54: # ascii 54 hex 36 dec 6

gpio.output(6, gpio.LOW)

gpio.output(13, gpio.HIGH)

gpio.output(19, gpio.HIGH)

gpio.output(26, gpio.LOW)

if v1 == 55: # ascii 55 hex 37 dec 7

gpio.output(6, gpio.HIGH)

gpio.output(13, gpio.HIGH)

gpio.output(19, gpio.HIGH)

gpio.output(26, gpio.LOW)

if v1 == 56: # ascii 56 hex 38 dec 8

gpio.output(6, gpio.LOW)

gpio.output(13, gpio.LOW)

gpio.output(19, gpio.LOW)

gpio.output(26, gpio.HIGH)

if v1 == 57: # ascii 57 hex 39 dec 9

gpio.output(6, gpio.HIGH)

gpio.output(13, gpio.LOW)

gpio.output(19, gpio.LOW)

gpio.output(26, gpio.HIGH)

# second TIL311 showing 0-9 decimal

if v2 == 48: # ascii 48 hex 30 dec 0

gpio.output(8, gpio.LOW)

gpio.output(7, gpio.LOW)

gpio.output(1, gpio.LOW)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 49: # ascii 49 hex 31 dec 1

gpio.output(8, gpio.HIGH)

gpio.output(7, gpio.LOW)

gpio.output(1, gpio.LOW)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 50: # ascii 50 hex 32 dec 2

gpio.output(8, gpio.LOW)

gpio.output(7, gpio.HIGH)

gpio.output(1, gpio.LOW)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 51: # ascii 51 hex 33 dec 3

gpio.output(8, gpio.HIGH)

gpio.output(7, gpio.HIGH)

gpio.output(1, gpio.LOW)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 52: # ascii 52 hex 34 dec 4

gpio.output(8, gpio.LOW)

gpio.output(7, gpio.LOW)

gpio.output(1, gpio.HIGH)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 53: # ascii 53 hex 35 dec 5

gpio.output(8, gpio.HIGH)

gpio.output(7, gpio.LOW)

gpio.output(1, gpio.HIGH)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 54: # ascii 54 hex 35 dec 6

gpio.output(8, gpio.LOW)

gpio.output(7, gpio.HIGH)

gpio.output(1, gpio.HIGH)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 55: # ascii 55 hex 35 dec 7

gpio.output(8, gpio.HIGH)

gpio.output(7, gpio.HIGH)

gpio.output(1, gpio.HIGH)

gpio.output(12, gpio.LOW)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 56: # ascii 56 hex 36 dec 8

gpio.output(8, gpio.LOW)

gpio.output(7, gpio.LOW)

gpio.output(1, gpio.LOW)

gpio.output(12, gpio.HIGH)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)

if v2 == 57: # ascii 57 hex 37 dec 9

gpio.output(8, gpio.LOW)

gpio.output(7, gpio.LOW)

gpio.output(1, gpio.LOW)

gpio.output(12, gpio.HIGH)

gpio.output(25, gpio.HIGH)

gpio.output(25, gpio.LOW)