

Waleed Binselim
Embedded Linux
Assignment 3

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#!/usr/bin/python
import os
import time
import sqlite3 as mydb
import sys

""" Log Current Time, Temperature in Celsius and Fahrenheit
Returns a list [time, tempC, tempF] """

sumOfSeconds = 0

def readTemp():
    tempfile = open("/sys/bus/w1/devices/28-051686f4d2ff/w1_slave")
    tempfile_text = tempfile.read()
    currentTime=time.strftime('%x %X %Z')
    tempfile.close()
    tempC=float(tempfile_text.split("\n")[1].split("t=")[1])/1000
    tempF=tempC*9.0/5.0+32.0
    return [currentTime, tempC, tempF]

def logTemp():
    con = mydb.connect('temperature.db')
    [t,C,F]=readTemp()
    print "Current temperature is: %s F" %F
    cur = con.cursor()
    #sql = "insert into TempData values(?,?,?)"
    cur.execute('insert into TempData values(?,?,?)', (t,C,F))
    con.commit()
    print "Temperature logged"
    global sumOfSeconds

    time.sleep(30)
    sumOfSeconds = sumOfSeconds + 30

    if sumOfSeconds != 600:
        logTemp()

logTemp()
```

