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| --- | --- |
|  | #!/usr/bin/python |
|  | import struct, array, time, io, fcntl |
|  |  |
|  | I2C\_SLAVE=0x0703 |
|  |  |
|  | # find with sudo i2cdetect -y 1 |
|  | HDC1008\_ADDR = 0x40 |
|  |  |
|  | bus=1 |
|  | fr = io.open("/dev/i2c-"+str(bus), "rb", buffering=0) |
|  | fw = io.open("/dev/i2c-"+str(bus), "wb", buffering=0) |
|  |  |
|  | # set device address |
|  | fcntl.ioctl(fr, I2C\_SLAVE, HDC1008\_ADDR) |
|  | fcntl.ioctl(fw, I2C\_SLAVE, HDC1008\_ADDR) |
|  | time.sleep(0.015) #15ms startup time |
|  |  |
|  | s = [0x02,0x02,0x00] |
|  | s2 = bytearray( s ) |
|  | fw.write( s2 ) #sending config register bytes |
|  | time.sleep(0.015) # From the data sheet |
|  |  |
|  | s = [0x00] # temp |
|  | s2 = bytearray( s ) |
|  | fw.write( s2 ) |
|  | time.sleep(0.0625) # From the data sheet |
|  |  |
|  | data = fr.read(2) #read 2 byte temperature data |
|  | buf = array.array('B', data) |
|  | print ( "Temp: %f" % ( ((((buf[0]<<8) + (buf[1]))/65536.0)\*165.0 ) - 40.0 ) ) |
|  |  |
|  | time.sleep(0.015) # From the data sheet |
|  |  |
|  | s = [0x01] # hum |
|  | s2 = bytearray( s ) |
|  | fw.write( s2 ) |
|  | time.sleep(0.0625) # From the data sheet |
|  |  |
|  | data = fr.read(2) #read 2 byte temperature data |
|  | buf = array.array('B', data) |
|  | print ( "Humidity: %f" % ( ((((buf[0]<<8) + (buf[1]))/65536.0)\*100.0 ) ) ) |