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***C:\Program Files (x86)\Microsoft Office\MEDIA\CAGCAT10\j0292982.wmfPYTHON SCRIPT ON THE IOT DEVICES TO SEND REAL-TIME ENVIRONMENTAL DATA TO THE MONITORING PLATFORM***

* ***environmental monitoring is the process of measuring and analysis the quality and condition***
* ***environment parameters temperature,optics,velocity,passive,infrared(PIR),level and flow***

***C:\Program Files (x86)\Microsoft Office\MEDIA\OFFICE12\Bullets\BD10301_.gifPYTHON SCRIPT***

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|  | ***#*!/usr/bin/python**  ***import struct, array, time, io, fcntl*** |
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***I2C\_SLAVE=0x0703***

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|  |
|  | ***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***

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|  | ***fcntl.ioctl(fr, I2C\_SLAVE, HDC1008\_ADDR)*** |
|  | ***fcntl.ioctl(fw, I2C\_SLAVE, HDC1008\_ADDR)*** |
|  | ***time.sleep(0.015) #15ms startup time*** |
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|  |
| ***s=[0x02,0x02,0x00]***   |  | | --- | |  | | ***s2=bytearray(s)*** | | ***#sending config register bytes*** |  | | | ***fw.write( s2 )*** |  | | |  |  | | ***time.sleep(0.0625) # From the data sheet*** |  | |
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| ***data = fr.read(2) #read 2byte 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]*** | | ***s2 = bytearray(s)*** | | ***fw.write(s2)*** |  | | ***time.sleep(0.0625)*** | ***#Fromthedatasheet*** | |  |  | |  |  |  |  | | --- | | ***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 ) ) )*** |
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