**PYTHON PROGRM FOR HIGH TEMPERATURE ALERT**

|  |
| --- |
| import smtplib |
|  | import time |
|  | import math |
|  | from email.MIMEMultipart import MIMEMultipart |
|  | from email.MIMEText import MIMEText |
|  | from w1thermsensor import W1ThermSensor |
|  |  |
|  | up\_time = time.time() |
|  | mail\_sent = 0 |
|  |  |
|  | def timer(): |
|  | global up\_int |
|  | global up\_time |
|  | up\_int = int(time.time() - up\_time) |
|  |  |
|  | def reset\_timer(): |
|  | global up\_int |
|  | global mail\_sent |
|  | mail\_sent = 0 |
|  |  |
|  | #timer set so alerts do not spam the user |
|  | def check\_timer(): |
|  | if up\_int % 3600 == 0: |
|  | reset\_timer() |
|  | Return |
|  |  |
|  | def sendmail(): |
|  | global mail\_sent |
|  | msg = MIMEMultipart() |
|  | msg['From'] = 'SENDER EMAIL GOES HERE' |
|  | msg['To'] = 'RECEIVE EMAIL GOES HERE' |
|  | msg['Subject'] = 'TEMPERATURE ALERT' |
|  | message = 'TEMPERATURE HAS REACHED:'+ temp\_str |
|  | msg.attach(MIMEText(message)) |
|  |  |
|  | mailserver = smtplib.SMTP('SMTP SERVER', SMTP PORT) |
|  | # initial identification to smtp server |
|  | mailserver.ehlo() |
|  | # secure all messages with tls encryption |
|  | mailserver.starttls() |
|  | # re-identify with an encrypted connection |
|  | mailserver.ehlo() |
|  | mailserver.login('SENDER SMTP EMAIL', 'SENDER SMTP PASSWORD') |
|  |  |
|  | mailserver.sendmail('SENDER','RECEIVER',msg.as\_string()) |
|  |  |
|  | mailserver.quit() |
|  | #Add another mail sent to counter variable |
|  | mail\_sent = 1 |
|  |  |
|  | def seeds(): |
|  | global mail\_sent |
|  | if temperature\_in\_fahrenheit > 90 or temperature\_in\_fahrenheit < 50: |
|  | if mail\_sent == 0: |
|  | sendmail() |
|  | Return |
|  | Return |
|  | while 1 == 1: |
|  | sensor = W1ThermSensor() |
|  | temperature\_in\_fahrenheit = sensor.get\_temperature(W1ThermSensor.DEGREES\_F) |
|  | temp\_str = str(temperature\_in\_fahrenheit) |
|  |  |
|  | timer() |
|  | check\_timer() |
|  | seeds() |