

```
In [18]: tvoc_feed = arduino.feeds('tvoc')
eco2_feed = aio.feeds('eco2')
door_feed = aio.feeds('front-door')
motion_feed = aio.feeds('motion-detector')
alarm_feed = aio.feeds('home-alarm')
outdoor_lights_feed = aio.feeds('outdoor-lights')
indoor_lights_Feed = aio.feeds('indoor-lights')
picam_feed = aio.feeds('picam')
```

-----  
**NameError**

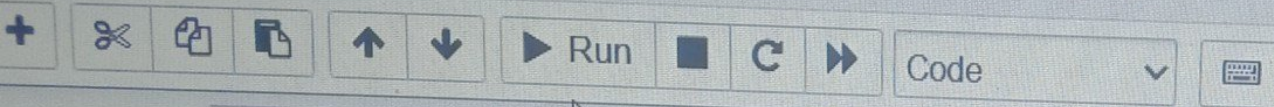
Traceback (most recent call last)

Cell In[18], line 1

```
----> 1 tvoc_feed = arduino.feeds('tvoc')
      2 eco2_feed = aio.feeds('eco2')
      3 door_feed = aio.feeds('front-door')
```

**NameError:** name 'arduino' is not defined





```
In [2]: # set up PiCamera
camera = picamera.PiCamera()
camera.resolution = (320, 240)

# set up door sensor
door_sensor = digitalio.DigitalInOut(D5)
door_sensor.direction = digitalio.Direction.INPUT

# set up motion sensor
pir_sensor = digitalio.DigitalInOut(D6)
pir_sensor.direction = digitalio.Direction.INPUT
prev_pir_value = pir_sensor.value
is_pir_activated = False

# set up sgp30
i2c_bus = I2C(SCL, SDA, frequency=100000)
sgp30 = adafruit_sgp30.Adafruit_SGP30(i2c_bus)

# set up the neopixel strip
pixels = neopixel.NeoPixel(D18, NUM_PIXELS_STRIP)
pixels.fill((0, 0, 0))
```







```
In [3]: co2eq, tvoc = sgp30.iaq_measure()
print("CO2eq = %d ppm \t TVOC = %d ppb" % (co2eq, tvoc))
# send SGP30 values to Adafruit IO
aio.send(eco2_feed.key, co2eq)
aio.send(tvoc_feed.key, tvoc)
time.sleep(0.5)
```

-----  
**NameError**

Traceback (most recent call last)

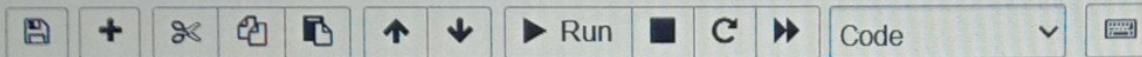
Cell In[3], line 1

```
----> 1 co2eq, tvoc = sgp30.iaq_measure()
      2 print("CO2eq = %d ppm \t TVOC = %d ppb" % (co2eq, tvoc))
      3 # send SGP30 values to Adafruit IO
```

**NameError:** name 'sgp30' is not defined

```
In [4]: # read/send door sensor
```





In [4]:

```
# read/send door sensor
if door_sensor.value:
    print('Door Open!')
    # change indicator block to red
    aio.send(door_feed.key, 3)
else:
    print('Door Closed.')
    # reset indicator block to green
    aio.send(door_feed.key, 0)
# read/send motion sensor
if door_sensor.value:
    if not prev_pir_value:
        print('Motion detected!')
        is_pir_activated = True
        # change indicator block to red
        aio.send(motion_feed.key, 3)
    else:
        if prev_pir_value:
            print('Motion ended.')
            is_pir_activated = False
        # reset indicator block to green
```



```
In [6]: Camera.capture('picam_img.jpg')
print('snap!')
with open("picam_img.jpg", "rb") as imageFile:
    str = base64.b64encode(imageFile.read())
    try:
        aio.send('picam', str)
    except:
        print('Sending camera image failed...')
```

NameError

Traceback (most recent call last)

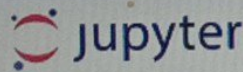
Cell In[6], line 1

```
----> 1 Camera.capture('picam_img.jpg')
      2 print('snap!')
      3 with open("picam_img.jpg", "rb") as imageFile:
```

NameError: name 'Camera' is not defined



localhost:8889/notebooks/hmsc.ipynb


 **jupyter** hmsc Last Checkpoint: a day ago (autosaved)












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Trusted

Python 3 (ipykernel) 

       Run    Code 

```
In [7]: # Alarm System
is_alarm = aio.receive(alarm_feed.key)
if (is_alarm.value == "ON"):
    # sample the current hour
    cur_time = time.localtime()
    cur_hour = time.tm_hour
    if (cur_hour > ALARM_HOUR and is_pir_activated == True):
        alarm_trigger()
```

**NameError**

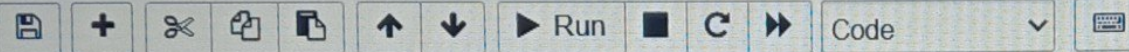
Traceback (most recent call last)

Cell In[7], line 2

```
1 # Alarm System
----> 2 is_alarm = aio.receive(alarm_feed.key)
      3 if (is_alarm.value == "ON"):
      4     # sample the current hour
      5     cur_time = time.localtime()
```

**NameError:** name 'aio' is not defined





```
-----> 2 is_alarm aio.receive(alarm_feed.key)
          3 if (is_alarm.value == "ON"):
          4     # sample the current hour
          5     cur_time = time.localtime()
```

**NameError:** name 'aio' is not defined

```
In [8]: # Set to the hour at which to arm the alarm system, 24hr time
        ALARM_HOUR = 16

        # Set to the interval between loop execution, in seconds
        LOOP_INTERVAL = 2
```

```
In [15]: Adafruit_IO_Home: Security
        CO2eq = 400 -ppm -> -TVOC = 0 ppb
        Door Closed.
        Motion detected!
        snap!
        sent to AIO!
```





```
In [8]: # Set to the hour at which to arm the alarm system, 24hr time
        ALARM_HOUR = 16

        # Set to the interval between loop execution, in seconds
        LOOP_INTERVAL = 2
```

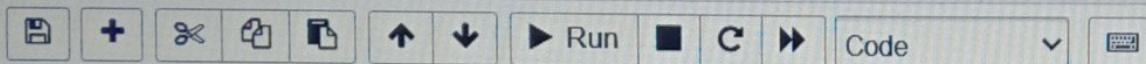
```
In [15]: Adafruit_IO_Home: Security
        CO2eq = 400 -ppm → -TVOC = 0 ppb
        Door Closed.
        Motion detected!
        snap!
        sent to AIO!
```

Cell In[15], line 2

```
CO2eq = 400 -ppm      -TVOC = 0 ppb
      ^
```

**SyntaxError:** cannot assign to expression





```
door closed.  
Motion detected!  
snap!  
sent to AI0!
```

```
Cell In[15], line 2  
    CO2eq = 400 -ppm    -TVOC = 0 ppb  
            ^  
SyntaxError: cannot assign to expression
```

In [ ]: