humtempstat

May 29, 2023

[ ]:
```
import matplotlib.pyplot as plt
import seaborn as sns
import pandas as pd
import numpy as np
from numpy import random as rand

#makes the plot come out in sns format
sns.set()
#time between readings ins seconds
increment=3
#read table into python and duration coloumn
table= pd.read_csv('/Users/Windows/Documents/GitHub/Humidity and temperature/
 ↪HumTemp.csv')
Sensor_val=np.array([table.loc[:,'Temperature'],table.loc[:,'Humidity']])
n=len(Sensor_val[0])
#time array beased on time between readings
Time= np.linspace(0,increment*n)
print(n)
```

[ ]:
```
#  Boxplot of Sensor_vals
tablemelt=table.melt()
sns.boxplot(x=tablemelt['variable'], y=tablemelt['value'], data=tablemelt)
plt.title('Boxplot of Humidity and temperature values')
plt.show()
```

[ ]:
```
#plot variation in humidity and temperature as test progresses
plt.plot(Sensor_val[0],Time)
plt.figure()
plt.plot(Sensor_val[1],Time)
```

```
[[509.03826541 509.42725184]
 [512.27796926 512.67892729]
 [512.26934857 512.6703066 ]]
```

[ ]:
```
print(Sensor_val[1])
print(Sensor_val[2])
```