

```
# -*- coding: utf-8 -*-  
"""
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Created on Sun Nov 15 15:09:44 2020
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```
@author: benw2  
"""
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```
import microspec as usp  
import matplotlib.pyplot as plt  
import numpy as np  
import pandas as pd
```

```
df=pd.read_csv("1308-36_map_noheader.txt",sep='\t',index_col=False)  
pix=df.iloc[:,0].tolist()  
df=pd.read_csv("1308-36_map_noheader.txt",sep='\t')  
wvlngths=df.iloc[:,0].tolist()
```

```
kit = usp.Devkit() #class, opens up serial comm
```

```
run=1  
exp=1
```

```
na=range(10)
```

```
while run==1:  
    avg_counts=[]  
    if exp==1:
```

```
kit.setAutoExposeConfig(start_pixel=min(pix),stop_pixel=max(pix),max_exposure=10000  
)
```

```
    kit.autoExposure()  
    print(kit.getExposure())  
    exp=0  
    for x in na:  
        reply=kit.captureFrame()  
        counts = ([reply.frame[pixel] for pixel in reply.frame if min(pix)<=pixel  
<=max(pix)])  
        avg_counts.append(counts)  
        avg_counts=np.array(avg_counts)  
        avg=np.mean(avg_counts,axis=0)  
        plt.plot(wvlngths,avg)  
        plt.show()  
        plt.pause(.1)  
        plt.clf()
```

```
kit.serial.close()
```