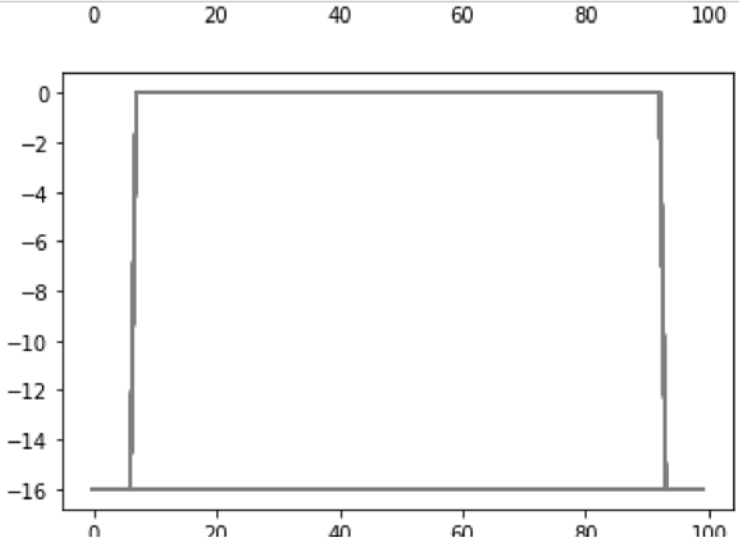
In [11]:

```
import numpy as np
import cv2
from matplotlib import pyplot as plt
# Import additional library to properply play videos on jupyter notebook
from IPython.display import clear_output


capL = cv2.VideoCapture('robotL.avi')
capR = cv2.VideoCapture('robotR.avi')
b = 92.226
f = 567.2

n=1
while (capL.isOpened() and capR.isOpened()):

    retL, frameL = capL.read()
    if not retL or frameL is None:
        break
    retR, frameR = capR.read()
    if not retR or frameR is None:
        break

    frameL_gray=cv2.cvtColor(frameL[frameL.shape[0]//2-50:frameL.shape[0]//2+50,frameL.shap
    frameR_gray=cv2.cvtColor(frameL[frameR.shape[0]//2-50:frameR.shape[0]//2+50,frameR.shap
    #disparity map
    stereo = cv2.StereoBM_create(numDisparities=16, blockSize=15)
    disparity = stereo.compute(frameL_gray,frameR_gray)
    plt.plot(disparity,'gray')
    plt.figure(n+1)
    #plt.imshow(disparity,'gray')   #DISPARITY IMAGE
    disparity = disparity[np.logical_and(disparity<=128, disparity>=0)]
    dmain = disparity.mean()
    #z = b*f/(dmain*100) #in meters
    n+=1
    #print(z)   #to display depth
    #if z>0.8:
        #if alarm stop alarm
    #else alarm

#release videos
capL.release()
capR.release()
```



In [ ]: