```python
# read.py

import csv
import numpy as np
import matplotlib.pyplot as plt

data = []
frame_rate = 125
scale =  0.52*10**(-3)
trackers = 4

# opening the CSV file
with open(r'C:\Users\louis\Desktop\positions.csv', mode ='r')as file:

  # reading the CSV file
  csvFile = csv.reader(file, delimiter = ';')

  # displaying the contents of the CSV file
  for lines in csvFile:
      n = len(lines)
      tmp = []
      for i in range (n):
        a = float(lines[i])
        tmp.append(a*scale)
      data.append(tmp)
      #print(lines)

time = []
for i in range(len(data)):
  time.append(i/frame_rate)

size_column = len(data[0])
xlist = []
ylist = []

for j in range(size_column//2):
  xlist_interm = []
  ylist_interm = []

  for i in range(len(data)):
    x = data[i][2*j]
    y = data[i][2*j+1]
    xlist_interm.append(x)
    ylist_interm.append(y)

  xlist.append(xlist_interm)
  ylist.append(ylist_interm)

print(xlist)

##Afficher les anguilles
# for i in range(10):
#   x_anguilles = []
#   y_anguilles = []
#   for j in range(trackers):
#     y_anguilles.append(data[30*i][2*j+1])
#     x_anguilles.append(data[20*i][2*j])
#   plt.plot(x_anguilles,y_anguilles)
#
# plt.ylabel("Y axis (in m)")
# plt.xlabel("X axis (in m)")
# plt.title("Different positions of the eel")

##Afficher la frequence
# plt.plot(time,ylist[0])
# plt.ylabel("Y axis (in meters)")
# plt.xlabel("Time (s)")
# plt.title("Tail marker during time")
```

```
67|
68| ##Afficher les trajectoires
69| # plt.plot(xlist[0],ylist[0])
70| # plt.plot(xlist[1],ylist[1])
71| # plt.plot(xlist[2],ylist[2])
72| # plt.plot(xlist[3],ylist[3])
73| # # plt.axis([-10*scale,1000*scale,-10*scale,1000*scale])
74| # # plt.yticks(range(0,1000,100) )
75| # # plt.xticks(range(0,1000,100) )
76| # plt.ylabel("Y axis (in m)")
77| # plt.xlabel("X axis (in m)")
78| # plt.title("Markers trajectories")
79|
80|
81|
82| # plt.xlabel("X axis (en m)")
83| # plt.ylabel("Y axis (en m)")
84| plt.show()
```