Assignment1

3.What do you need to know

from http://www.coppeliarobotics.com/helpFiles/index.html to implement a four-wheeled robot?

依照 BubbleRob tutorial 跟 Line following

BubbleRob tutorial，要使一個四輪車驅動的話每一個輪子要配有一個馬達，若要規劃其移動路徑，則須配合視覺感測器(vision sensors)以及路徑規劃(Menu bar --> Add --> Path --> Circle type)的功能還有程式的搭配。

2.Describe how to prepare a portable Python programming system for Windows 10 64bit system to allow one the maintain CMSiMDE website, Pelican blog and Reveal.js presentation on Github?

1.在隨身碟創建 data 的資料夾

2.創建 py382 資料夾，下載 python3.8.2，安裝時將 pip 的選項取消

3.創建 msys64 資料夾，下載 msys2

4.下載 PortableGit 到 data 底下

5.創 wscite432 資料夾，下載 SciTE

6.打開 SciTE，輸入

(1)start.bat

(2)stop.bat

(3)下載模組

```
1   @echo off
2   set Disk=y
3   subst %Disk%: "data"
4
5   %Disk%:
6
7   set HomePath=%Disk%:\home
8   set HomeDrive=%Disk%:\home
9   set Home=%Disk%:\home
10  set USERPROFILE=%Disk%:\home
11
12  REM 將系統 Python 程式的 io 設為 utf-8
13  set PYTHONIOENCODING="utf-8"
14
15  #REM for putty
16  #Set GIT_HOME=%CDisk%:\portablegit\bin\
17  #Set GIT_SSH=%Disk%:\putty\plink.exe
18
19  set PYTHONPATH=%Disk%:\py382\DLLs;%Disk%:\py382\Lib;%Disk%:\py382\Lib\site-packages;
20  set PYTHONHOME=%Disk%:\py382
21
22  set path_python=%Disk%:\py382;%Disk%:\py382\Scripts;
23  set path_msys2=%Disk%:\msys64\mingw64\bin;
24  set path_git=%Disk%:\portablegit\bin;
25  set path_tcc=%Disk%:\tcc;
26
27  path=%Disk%:;%path_python%;%path_msys2%;%path_git%;%path_tcc%;
28
29  start /MIN cmd.exe
30  start /MIN cmd.exe
31  start /MIN cmd.exe
32  start /MIN cmd.exe
33
34  start /MIN %Disk%:\wscite432\wscite\SciTE.exe
35  start /MIN %Disk%:\wscite432\wscite\SciTE.exe
36
37  Exit
```

1

```
1   @echo off
2   set Disk=y
3   path=%PATH%;
4
5   taskkill /IM python.exe /F
6   taskkill /IM pythonw.exe /F
7   taskkill /IM scite.exe /F
8
9   REM 終止虛擬硬碟與目錄的對應
10  subst %Disk%: /D
11  REM 關閉 cmd 指令視窗
12  taskkill /IM cmd.exe /F
13
14  EXIT
```

2

```
1   python get-pip.py
```

3
```
1   pip install flask bs4 lxml pelican markdown flask_cors leo
```

這樣就完成可攜的更新了

1.Describe how to do an efficient random grouping for this course or do the roll calling randomly?

必須要知道 request，ast.literal_eval，random，for 迴圈

Request:可透 python 下載網頁上資料

Ast 模組: Ast 是 python 原始碼到位元組碼的一種中間產物，藉助 ast 模組可以從語法樹的角度分析原始碼結構

資料: https://www.itread01.com/content/1544847254.html

Random():產生一括號內的隨機數

資料: https://www.runoob.com/python/func-number-random.html

For 迴圈:逐一顯示

資料: https://medium.com/@mingjunlu/understanding-for-loops-in-python-64dd993510ce

首先用 request.get(link)將學號擷取，再利用 ast 模組中的 ast.literal_eval 將資料原始碼分析轉換，再用 random 中的 random.suffle 語法及 for 迴圈進行抽點。

資料:
https://github.com/s40723227/cd2020/blob/master/downloads/Assignment%201.pdf