Lab 6 Assignment

學號 0510727　　姓名 張博凱

1. Assignment 1

   Expected Result

```
sean@sean-MSI:~/sis_lab_all_2020/06-Camera_Calibration/catkin_ws$ \
> rosrun hand_eye_calibration get_transform ../data/calibration.txt
 0.00609644   0.0091841    0.999939     0.46044
 -0.0494429    0.998737 -0.00887157   -0.130027
  -0.998758  -0.0493858  0.00654283    0.611257
          0           0           0           1
```

   (You can name your node arbitrary)

   Your Result

```
alex@alex-K501UX:~/sis_lab_all_2020/06-Camera_Calibration/catkin_ws$ rosrun hand_eye_calibration
 get_transform ../data/calibration.txt
Homogeneous transformation matrix:
 0.006096  0.009184  0.999939  0.460440
-0.049443  0.998737 -0.008872 -0.130027
-0.998758 -0.049386  0.006543  0.611257
-0.000000  0.000000  0.000000  1.000000
```

Please also hand in the compressed `hand_eye_calibration` package into .zip format, the directory tree would be liked

```
sean@sean-MSI:~/sis_lab_all_2020/06-Camera_Calibration/catkin_ws$ tree src/hand_eye_calibration/
src/hand_eye_calibration/
├── CMakeLists.txt
├── include
│   └── point_set_registration.h
├── package.xml
└── src
    ├── get_transform.cpp
    └── point_set_registration.cpp
```

The required files include `CMakeLists.txt`, `package.xml` and corresponding source code. The separated header file and its implementation structure is not forced.

Rules:

- You should parse the input file instead of handcode the data
- You should not assume the number of data points is known
- You should edit `CMakeLists.txt` so that after you run the command
  $ catkin_make
  you would get the executable file under the path devel/lib/hand_eye_calibration

2. 注意事項

- 檔案名稱請改為 Lab6_assignment_學號_姓名，上傳格式請用 ZIP，其中包含此份文件之 PDF 與套件之 ZIP
- 學生只要將作業要求的圖片更改為自己做實驗並截圖下來的圖片即可，無須多做說明。
- 請勿抄襲