

**MRSD**  
**Individual Lab Report 3**  
**Sida Wang**

Group name: Group G, RoboGrapher

Teammates: Tiffany May  
Rohit Dashrathy  
Jimit Gandhi  
Gauri Gandhi

Submission Date: Oct. 30, 2015

# Individual Progress

## 1. Set up the working environment of Intraface

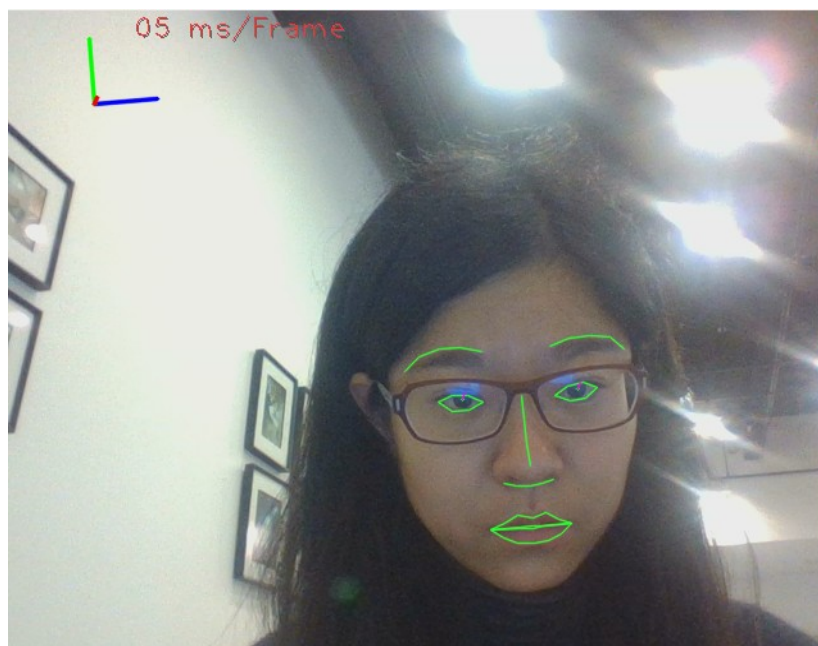
It took us long time to set up the working environment of Intraface. As the updated version of Intraface has been released about 3 weeks ago, and at that time, the Intraface people sent us the software. To some reason, there are some internal bugs in Intraface.

- (1) Several libraries have not been updated, so Intraface can not be used correctly.
- (2) Failed to exit from Intraface. And after modified the code, this bug has been solved. At first, we failed to use the function `cv::waitKey` to get the key ascii. And we fix this problem by do & operation with `0x00FF`.

## 2. Started to learn bash language. Set up bash file to initialize Intraface after running it, it will make the working environment more convenient.

## 3. Start to read the code of the demo of Intraface.

Please refer to the figures in drawing 1.



```
Sadn: 4.76051e-07
Surp: 0.300592
Emo:
Neut: 0.5024
Angr: 5.94019e-13
Disg: 6.23227e-08
Happ: 5.94019e-13
Sadn: 1.14183e-06
Surp: 0.497599
Emo:
Neut: 0.503839
Angr: 2.07978e-11
Disg: 1.58901e-07
Happ: 2.07978e-11
Sadn: 4.60018e-06
Surp: 0.496157
Emo:
Neut: 0.507963
Angr: 4.24707e-12
Disg: 5.81123e-09
Happ: 4.24707e-12
Sadn: 2.80362e-06
Surp: 0.492034
```

*Drawing 1: The demo of Intraface*

## **Challenges**

1. There are limited papers related to multi-camera facial expression recognition, so there is limited resources that we can refer to.
2. Turtlebots is 32-bit version, but our Ubuntu versions as well as Intraface are 64-bit, so version conversion is required.

## **Team work**

1. Tiffany and I: Make Intraface works.
2. Rohit, Gauri: pan-tilt unit, make Turtlebots walk
3. Jimit: do research on multi-camera facial expression recognition

## **Future Plan**

1. Start to use the camera we bought for Intraface facial expression recognition
2. Start work on multi-camera facial expression recognition