

Robotics Homework 1

龙肖灵

Xiaoling Long

Student ID.: 81943968

email:longxl@shanghaitech.edu.cn

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1.Prepare Ubuntu: Done.

2.Install ROS: Figure 1 is my screenshoot after I finished this work.

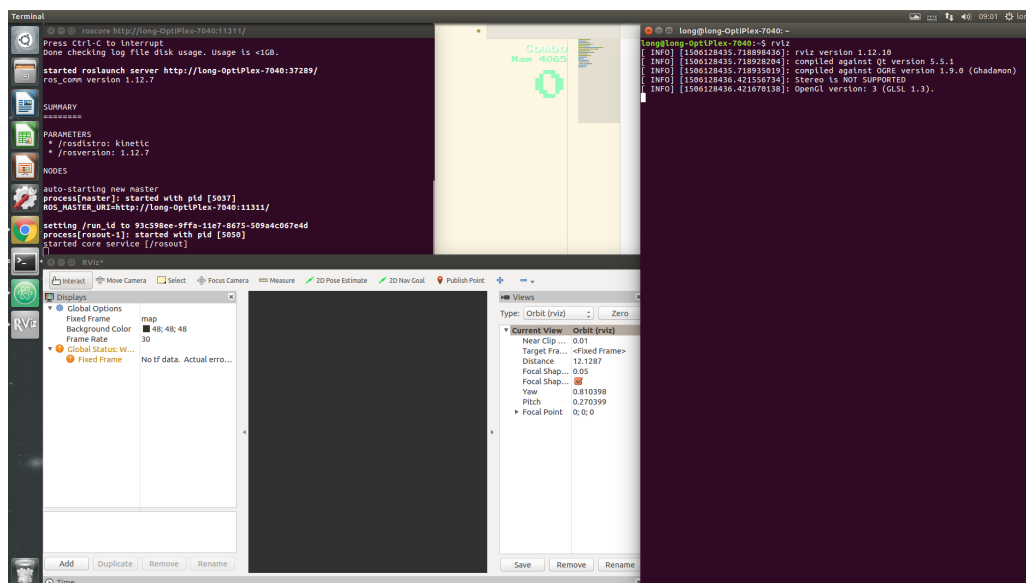


Figure 1: A screenshoot after finishing installing.

3.Shakey the Robot: There is three questions.

1. I found the quantitative properties as following and compared to my cell phone.

CPU Speed	20Mhz(I guess)	1.8Ghz(200 times)
RAM	256kB(Computed)	2GB(too much)
Size	$1 \times 1 \times 1(m^3)$ (Guess)	$138 \times 67 \times 6.9(mm^3)$
Words Lenth	36bit(Searched online)	64bit(twice)
Cam Resolution	256 \times 256(Guess too)	about 1.2×10^8 (emm)

2. Compare to my cell phone, I think these values are so little. But shakey can still finish these amazing work based on these hardware. This is a amazing work. And a big step in the history of robotics.

3. First step, Shakey takes a picture on object, and then extracts the lines from the picture of object. After that compares it with picture in library stored before. Finally he can recognize the object if in library.

4 GIT: I have sent my public key to TA. And can see my repo after ssh operation.