

[REDACTED]

Dear [REDACTED]

It's wonderful to hear that you've successfully completed Tutorials 1 and 2. Indeed, there is a significant difference between ROS 1 and ROS 2, particularly in the methods of communication between packages. This difference means that packages and topics in ROS 1 usually face difficulties communicating with those in ROS 2, and vice versa.

If you're interested in progressing to Tutorial 4, you'll need to set up ROS Noetic on an Ubuntu 20.04 LTS operating system. Personally, I utilize Ubuntu 22.04 but have established a VMware Virtual Machine to create an Ubuntu 20.04 LTS environment specifically for this course.

While it is possible to use ROS Noetic on Ubuntu 22.04, I strongly advise against it. The alternative methods involve building ROS from binary sources (.deb), which is challenging because **apt-get** does not manage ROS 1's dependencies on Ubuntu 22.04. Building packages without the convenience of **apt-get** can be quite demanding. Professor Boyd and I are currently exploring the possibility of running ROS Noetic on Debian 12 (since ROS Humble Hawksbill officially supports Debian 12). For your reference (note: this webpage has **NOT** been published for student access, and this link will be modified in the future), here is how we are addressing this issue:

[REDACTED]

Overall, you have done an exceptional job thus far! However, I'd like to remind you that Tutorial 4 is **optional** for students in this course. This is because, for this semester's final run, remote networking for ROS is not mandatory. Our teaching team has optimized the Raspberry Pi OS ([PurplePet](#)) to enhance performance in handling ROS Mapping locally on Raspberry Pi.

Should you encounter any issues related to ROS, please feel free to email me or discuss them with me during office hours (OT/OT).

I hope you enjoy your learning experience with us and wish you have a nice day ahead!

Best regards,
Guoyi, B05 TA

Dear Mr. [REDACTED]

Thank you for forwarding this email to me. I trust that the student will now be able to resolve the issue.

Wishing you a pleasant day!

Best regards,
Guoyi

[REDACTED]

Hi Guoyi,

Could you please advise Xuan You on the installation of ROS and SLAM?

Thank you.

Best Regards,

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Dear Mr [REDACTED]

I have completed part 1 and 2 of tutorial of ROS, and currently at part 3. I have followed the step by step instructions on installing the ROS on my laptop's ubuntu. However, there is error after I typing in "sudo apt install ros-noetic-desktop".

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ros-noetic-desktop
```

After checking with online resources(aka ChatGPT), I realised that "Given that your Ubuntu version is 22.04.3 LTS (Jammy Jellyfish), you're encountering issues because ROS Noetic is officially targeted for Ubuntu 20.04 (Focal Fossa), as mentioned in previous messages. However, you still have options to install ROS on Ubuntu 22.04, such as using a newer ROS distribution that supports 22.04, like ROS 2 Humble Hawksbill or ROS Noetic via a workaround. Here's how you can proceed:" ---ChatGPT4, 2024

My laptop's ubuntu version is incompatible with the ROS Noetic. Therefore, I continue with installing ROS 2 Humble Hawksbill.

Is there significant difference between the two ROS versions? Am i still OK to proceed with the rest of the steps using ROS 2 Humble Hawksbill?

Thank you, and have a great day.

Best regards,

[REDACTED]