

Lecture 3

1. Install ROS2
2. Download serta Install webots



3. Install webots ROS2 package dengan syntax “sudo apt -get install rosfoxy-webots-ros2” tunggu hingga proses selesai

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ros-foxy-webots-ros2
```

4. Saya tidak tahu mengapa unable locate, tetapi sudah mencoba mencari Solusi di chatgpt tetap tidak bisa menyelesaikan masalah saya. Karena itu saya tidak dapat melanjutkan pengerjaan.

The screenshot shows a YouTube video player. The video title is 'ROS 1 Services vs ROS 2 Services'. The video content is a comparison table between ROS 1 and ROS 2 services. The table has two columns: 'ROS 1 Services' and 'ROS 2 Services'. The video is part of the 'Webots ROS2 Tutorial Series' and is titled 'Using ROS2 Services to interact with Webots | Webots ROS2 tutorial series [Tutorial 3]'.

ROS 1 Services	ROS 2 Services
In ROS 1 .msg and .srv files can have the same name but the generated code collides. The same is the case for the request and response parts of services.	In ROS 2 the generated code uses separate namespaces to guarantee it is collision-free.
If written in python need not initiate to run the service client or server.	We need to initialize service client and server in setup.py in order to build it and use it. Can do python3 <nodename>.py without adding it in setup.py.
In ROS1, services are synchronous. When your service client asks a request to the server, it is stuck until the server responds (or fails).	In ROS2, services are asynchronous. We need to set them to asynchronous mode.
rosservice and rosparam can not be tweaked by each other.	In ROS2, we also get parameters as services and those parameters can be tweaked by ros2 service and ros2 param.

The screenshot shows a YouTube video player. The video title is 'Applications of publisher in ROS 2'. The video content is a list of applications for publishers in ROS 2. The video is part of the 'Webots ROS2 Tutorial Series' and is titled 'Tutorial on Publishers in ROS2 | Webots ROS2 Tutorials [Tutorial 4]'.

- To control the system real time.
- To inform system about updated environment.
- Internal communication of the system.
- To control the actuators position and velocity for their motion.
- To perform action in sequence.
- To handle emergency stopping situation.