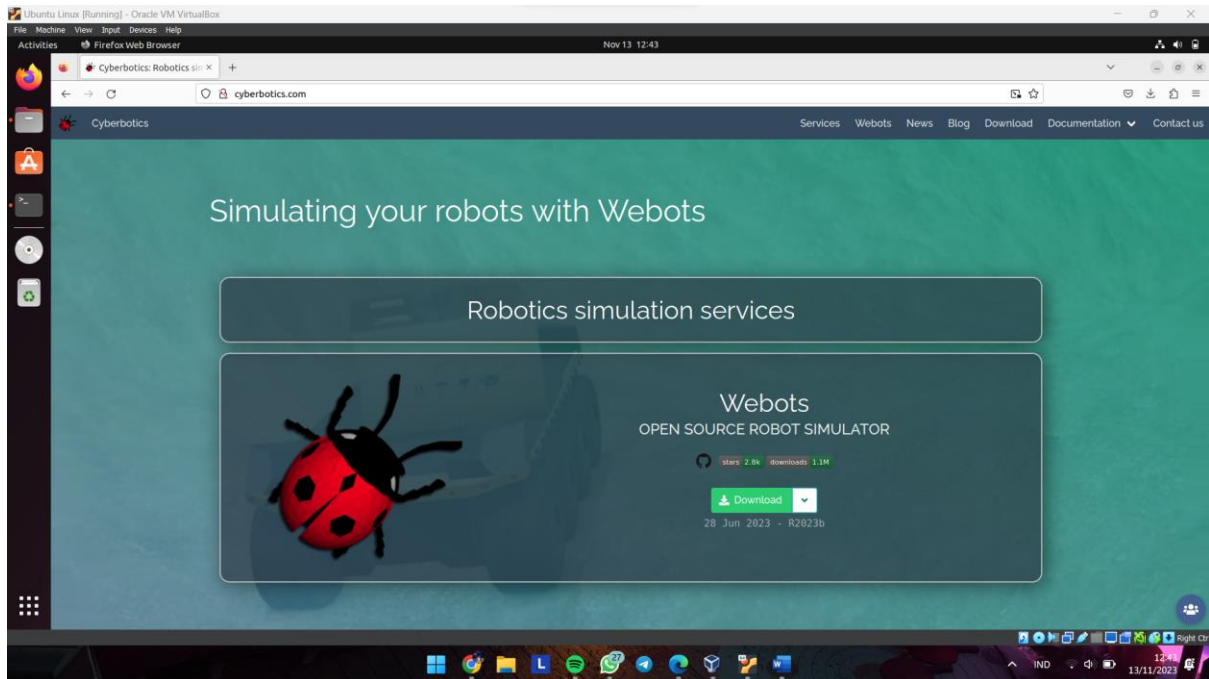


MUHAMMAD IKHWAN MAULANA

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## LECTURE 4

1. Install ROS2
2. Download dan install webots

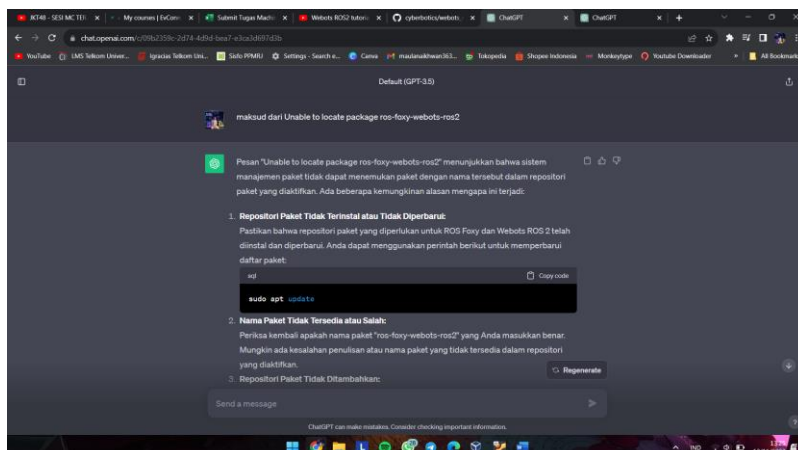


3. Install webots ROS2 package

Saat saya mencoba untuk install paket ROS2, saya dapat pemberitahuan seperti berikut

```
ikhwan@ikhwan:~/ros2_ws/src/webots_ros2$ sudo apt-get install ros-foxy-webots-ros2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ros-foxy-webots-ros2
```

Saya sudah mencoba dengan bertanya pada chat jpt dan diberikan solusi, tetapi tetap tidak bisa



```

ikhwang@ikhwang: ~$ cd ros2_ws/src/
ikhwang@ikhwang:~/ros2_ws/src$ cd -
ikhwang@ikhwang:~/ros2_ws/src$ git clone https://github.com/cyberbotics/webots_ros2
Cloning into 'webots_ros2'...
remote: Enumerating objects: 13532, done.
remote: Counting objects: 100% (2719/2719), done.
remote: Compressing objects: 100% (592/592), done.
remote: Total 13532 (delta 2273), reused 2324 (delta 2108), pack-reused 10813
Receiving objects: 100% (13532/13532), 55.70 MiB | 1.56 MiB/s, done.
Resolving deltas: 100% (9232/9232), done.
ikhwang@ikhwang:~/ros2_ws/src$ cd webots_ros2/
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ ls
CODE_OF_CONDUCT.md  images  README.md  tests  webots_ros2_control  webots_ros2_epuck  webots_ros2_mavc  webots_ros2_testla  webots_ros2_tiago  webots_ros2_universal_robot
CONTRIBUTING.md    LICENSE  scripts  webots_ros2  webots_ros2_driver  webots_ros2_importer  webots_ros2_msgs  webots_ros2_tests  webots_ros2_turtlebot
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ sudo apt-get install ros-foxy-webots-ros2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ros-foxy-webots-ros2
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ sudo sh -c 'echo "deb http://packages.ros.org/ros2/ubuntu focal main" > /etc/apt/sources.list.d/ros2-latest.list'
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ sudo apt-get install ros-foxy-webots-ros2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ros-foxy-webots-ros2
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ ros2 --version
usage: ros2 [-h] [--use-python-default-buffering] Call 'ros2 <command> -h' for more detailed usage. ...
ros2: error: unrecognized arguments: --version
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ ros2 --version
usage: ros2 [-h] [--use-python-default-buffering] Call 'ros2 <command> -h' for more detailed usage. ...
ros2: error: unrecognized arguments: --version
ikhwang@ikhwang:~/ros2_ws/src/webots_ros2$ ros2 --version
usage: ros2 [-h] [--use-python-default-buffering] Call 'ros2 <command> -h' for more detailed usage. ...
ros2 is an extensible command-line tool for ROS 2.

options:
  -h, --help            show this help message and exit
  --use-python-default-buffering
                        Do not force line buffering in stdout and instead use the python default buffering, which might be affected by PYTHONUNBUFFERED=-u and depends on whatever stdout is interactive or not

Commands:
  action               Various action related sub-commands
  bag                  Various rosbag related sub-commands
  component             Various component related sub-commands
  daemon               Various daemon related sub-commands
  doctor               Check ROS setup and other potential issues
  
```

4. Saya juga bingung karena paket yang sekarang digunakan berbeda dengan tutorial yang ditonton, sehingga itu menjadi kendala utama
5. Saya tidak bisa melanjutkan langkah langkah selanjutnya yang sudah diberikan dalam video tutorial
6. Akhirnya saya hanya bisa menonton sambil belajar video tutorial tersebut

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.

Using ROS2 Services to interact with Webots | Webots ROS2 tutorial series [Tutorial 3]

Soft illusion  
3,111 rb subscriber

35 3

2.7 rb x ditonton 3 tahun yang lalu Webots ROS2 Tutorial Series

Webots ROS2 Tutorial Series

1. Webots ROS2 tutorial series : Setting Up ROS2 and Webots ...  
Soft illusion 15.29

2. Different examples in Webots with ROS2 | Webots ROS2...  
Soft illusion 16.28

3. Using ROS2 Services to interact with Webots | Webots...  
Soft illusion 18.41

4. Tutorial on Publishers in ROS2 | Webots ROS2 Tutorials |...  
Soft illusion 18.45

5. Tutorial on Subscribers in ROS2 | Webots ROS2 Tutorial...  
Soft illusion 18.30

6. Line Following Custom Robot Project | Webots ROS2 nmien

FRESHBREAK dubu, menangin healing seru kemudian.

Ruman Irfan

YouTube video player interface showing a video titled "Applications of publisher in ROS 2". The video is from the channel "Soft illusion" and is part of the "Webots ROS2 Tutorial Series". The video content displays a list of applications:

- 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.

The video player shows a progress bar at 17:26 / 18:44. The channel name "Soft illusion" and subscriber count "3,11 rb subscriber" are visible. The video title is "Tutorial on Publishers in ROS2 | Webots ROS2 Tutorials | [Tutorial 4]".

On the right side, the "Webots ROS2 Tutorial Series" playlist is shown, listing 13 videos. The current video is the 4th in the series.

YouTube video player interface showing a video titled "Subscriber with Node". The video is from the channel "Soft illusion" and is part of the "Webots ROS2 Tutorial Series". The video content displays a 3D simulation of a robot on a checkered floor, with a terminal window showing ROS2 logs.

The video player shows a progress bar at 15:05 / 18:29. The channel name "Soft illusion" and subscriber count "3,11 rb subscriber" are visible. The video title is "Tutorial on Subscribers in ROS2 | Webots ROS2 Tutorials | [Tutorial 5]".

On the right side, the "Webots ROS2 Tutorial Series" playlist is shown, listing 13 videos. The current video is the 5th in the series.