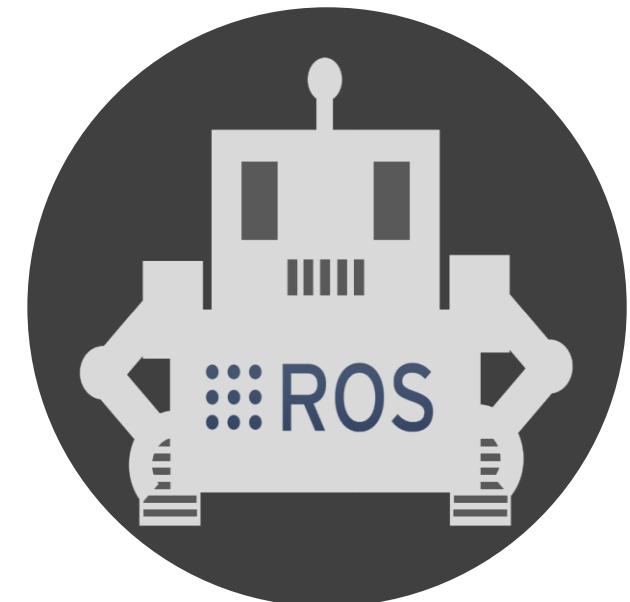


ROS 기초 강의

Chapter 1. ROS 개발환경 설정

구선생 로보틱스



강의 자료 다운로드



ROS 기초 강의 강의노트

https://drive.google.com/drive/folders/1rRwS2j98HNyj5ls_yVXEGj30ILvMPtrz?usp=drive_link

1. 리눅스 설치

2. ROS 설치

3. ROS 개요

리눅스 설치

Ubuntu 20.04 듀얼부팅 설치



<https://www.youtube.com/watch?v=x7tpah6Tiqw>

Ubuntu 20.04 가상머신 설치



<https://www.youtube.com/watch?v=WidiOMUCeTM>

- 1. 리눅스 설치**
- 2. ROS 설치**
- 3. ROS 개요**

ROS 설치

ROS noetic install 검색 후 사이트 이동

Google

ROS noetic install 1) 검색

전체 동영상 이미지 뉴스 쇼핑 더보기 도구

검색결과 약 105,000개 (0.26초)

도움말: 한국어 검색결과만 검색합니다. 환경설정에서 검색 언어를 지정할 수 있습니다.

<http://wiki.ros.org/noetic/Installation/Ubuntu>

Ubuntu install of ROS Noetic - ROS Wiki 2) 클릭

2022. 5. 25. — Installation · First, make sure your Debian package index is up-to-date: · Now pick how much of ROS you would like to install. · There are even ...
Setup your sources.list · Environment setup · Dependencies for building...

ROS 설치

문서의 절차대로 진행

1. Installation

1.1 Configure your Ubuntu repositories

Configure your Ubuntu repositories to allow "restricted," "universe," and "multiverse." You can [follow the Ubuntu guide](#) for instructions on doing this.

1.2 Setup your sources.list

Setup your computer to accept software from packages.ros.org.

```
sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu $(lsb_release -sc) main" > /etc/apt/sources.list.d/roslatest.list'
```

Mirrors [Source Debs](#) are also available

1.3 Set up your keys

```
sudo apt install curl # if you haven't already installed curl  
curl -s https://raw.githubusercontent.com/ros/rosdistro/master/ros.asc | sudo apt-key add -
```

1.4 Installation

First, make sure your Debian package index is up-to-date:

```
sudo apt update
```

순서대로 진행

ROS 설치

설치 확인

\$ roscore 명령어 입력시 아래 화면이 출력되어야 함

```
roscore http://ubuntu:11311/
ubuntu@ubuntu:~$ roscore
... logging to /home/ubuntu/.ros/log/09c34d02-30f0-11ee-a6d7-39c151f3ecd1/roslau
nch-ubuntu-7946.log
Checking log directory for disk usage. This may take a while.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

started roslaunch server http://ubuntu:35739/
ros_comm version 1.16.0

SUMMARY
=====

PARAMETERS
* /rosdistro: noetic
* /rosversion: 1.16.0

NODES

auto-starting new master
process[master]: started with pid [7954]
ROS_MASTER_URI=http://ubuntu:11311/

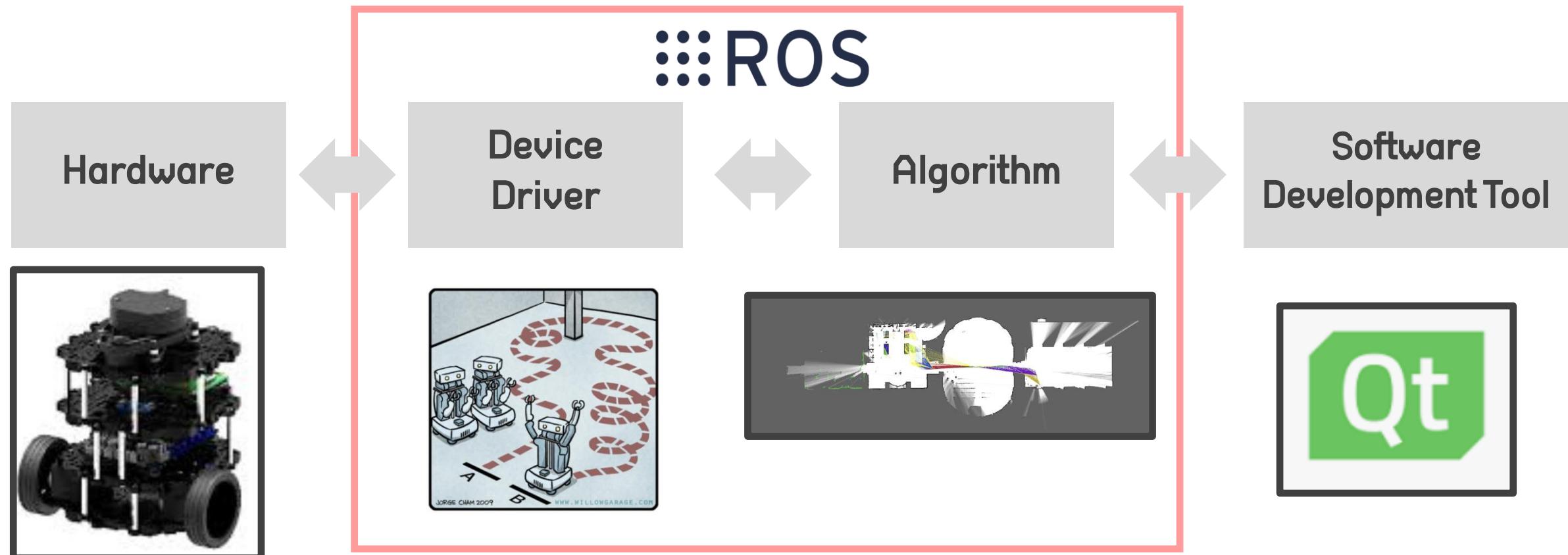
setting /run_id to 09c34d02-30f0-11ee-a6d7-39c151f3ecd1
process[rosout-1]: started with pid [7964]
```

- 1. 리눅스 설치**
- 2. ROS 설치**
- 3. ROS 개요**

ROS 개요

ROS란 무엇인가?

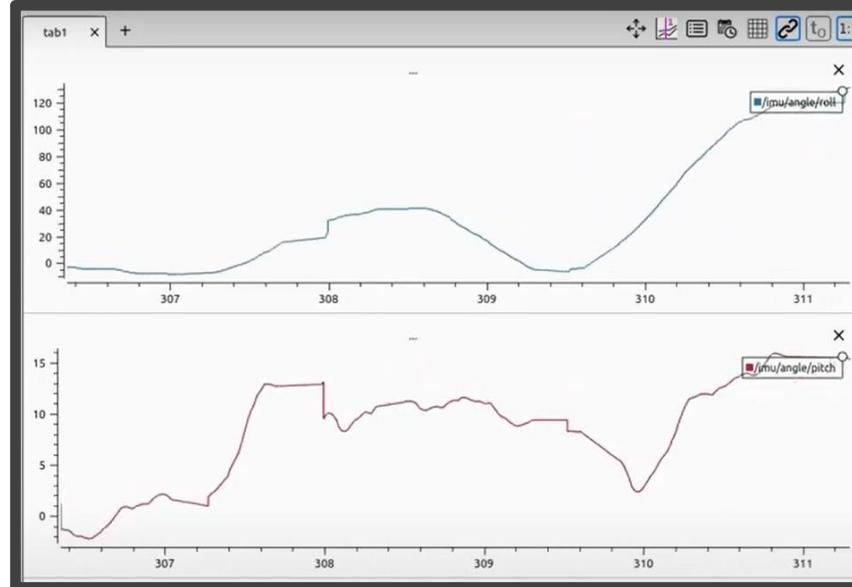
- Robot Operating System의 약자
- 로봇 소프트웨어를 구축하는데 도움이 되는 라이브러리



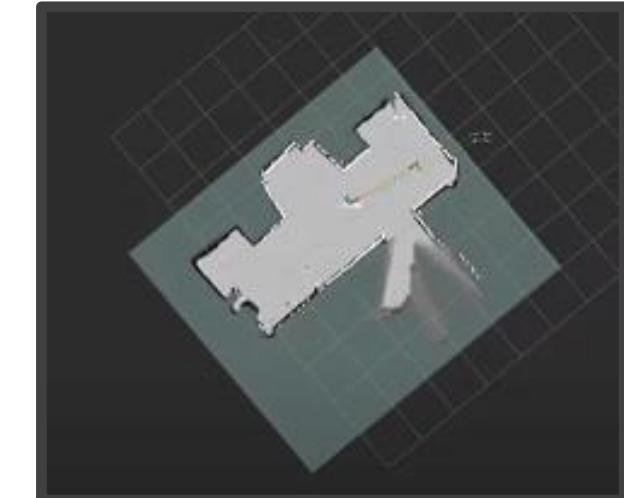
ROS 개요

왜 ROS를 사용해야 하는가?

- 모듈화의 이점
- 개발 및 유지보수 시간 단축
- SLAM 및 Navigation 등 다양한 오픈소스 제공



	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	
0	2.1	0	0	0	0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1	2.4	0	0	0	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	3.3	0	0	0	0	3.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3.9	0	0	0	0	4.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4.5	0	0	0	0	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	5.1	0	0	0	0	5.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	5.7	0	0	0	0	6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	6.3	0	0	0	0	6.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	6.9	0	0	0	0	7.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	7.5	0	0	0	0	7.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	8.1	0	0	0	0	8.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	8.6	0	0	0	0	8.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	9.0	0	0	0	0	9.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	9.6	0	0	0	0	9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	9.9	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0.6	0	0	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0.9	0	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1.2	0	0	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	1.5	0	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	1.8	0	0	0	0	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	2.1	0	0	0	0	2.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	2.4	0	0	0	0	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	2.7	0	0	0	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	3.0	0	0	0	0	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	3.3	0	0	0	0	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	3.6	0	0	0	0	3.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	3.9	0	0	0	0	3.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	4.2	0	0	0	0	4.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



위의 기능을 모듈형태로 오픈소스로 제공하고 있어 쉽게 적용 가능

감사합니다

구선생 로보틱스

