📔 포팅 매뉴얼

프로젝트 사용 도구

- 이슈 관리: JIRA
- 형상 관리: GitLab
- 커뮤니케이션: Notion, Mattermost, Discord
- 디자인: Figma
- CI/CD: Jenkins

기술 스택

Front

- Node v18.15.0
- React v18.2.0
- Kotlin v1.8.0
- Android studio flamingo
- firebase
- Socket.io-client v1.0.1
- APIs
    - OpenWeatherAPI
    - 오늘의 꽃 추천 API

Back

- Node v18.15.0
- Socket.io v4.6.1
- Express.js v4.18.2

Hardware

- TurtleBot3 Burger
- 라즈베리파이 4
- OpenCR
- micro-ros v2.0.5
- mighty zap 액추에이터 12Lf Series
- HC-SR04 초음파센서
- arduino 물펌프

ROS

- Python v3.8.10

- C++14-Socket.io

- ROS2-foxy

- opencv-contrib-python 4.5.3.56

- opencv-python 4.5.3.56

```
ROS_VERSION=2
ROS_PYTHON_VERSION=3
ROS_DOMAIN_ID=35
AMENT_PREFIX_PATH=/opt/ros/foxy
PYTHONPATH=/opt/ros/foxy/lib/python3.8/site-packages
LD_LIBRARY_PATH=/usr/lib/x86_64-linux-gnu/gazebo-11/plugins:/opt/ros/foxy/opt/yaml_cpp_vendor/lib:/opt/ros/foxy/opt/rviz_ogre_vendor/l
ROS_LOCALHOST_ONLY=0
PATH=/opt/ros/foxy/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin
ROS_DISTRO=foxy
```

ROS GPU Setting

- CUDA Toolkit 11.2.2(March 2021)

- cuDNN v8.1.0 (January 26th, 2021), for CUDA 11.0,11.1 and 11.2

ROS Pytorch

- torch - 1.8.1+cu111

- torchaudio - 0.8.1

- torchvision - 0.9.1+cu111

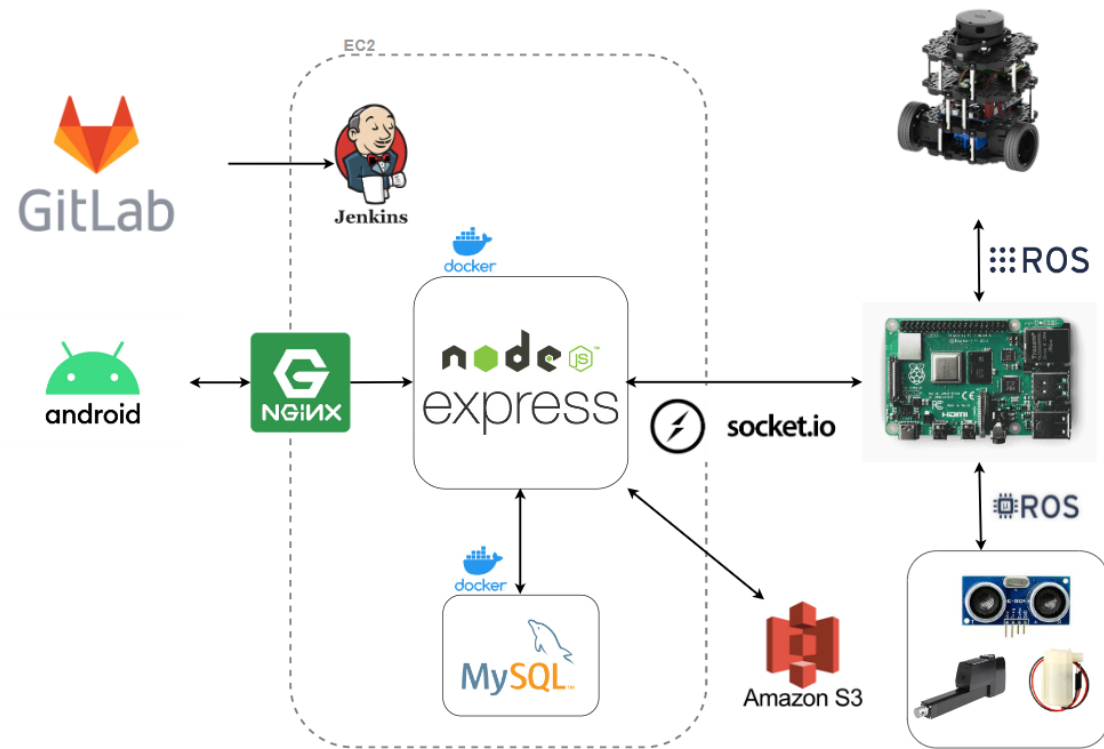## ROS YOLO(pytorch hub yolov5 사용 : git clone https://github.com/ultralytics/yolov5)

- numpy 1.21.1

- Pillow 9.4.0

- pandas 1.3.5

- setuptools 67.6.0

- seaborn 0.12.2

DB

- Amazon S3

- MySQL

CI/CD

- Docker

- Jenkins

- NGINX

OS

Linux Ubuntu 20.04

배포

ROS