

Table of Contents

| | |
|------------------------|---|
| 1. ROS master | 2 |
| 1.1. Repository | 2 |
| 1.2. How to run? | 3 |

Welcome

Project Willy

- [History of Willy](#)
- [Project Willy](#)
- [Publicity](#)
- [Sponsors](#)

Getting started

- [Development Guide](#)
- [Driving Willy](#)
- [Documentation](#)

Build of Willy

- [Design history](#)
- [Requirements](#)
- [Design reference](#)
- [Physical build](#)
- [Hardware](#)

Robotic Operating System

- [Introduction to ROS](#)
- [ROS Tutorials](#)
- [Multi master](#)

Architecture

- [Software Architecture](#)
- [Hardware Architecture](#)
- [Skylab Architecture](#)
- [ROS topic design](#)

Hardware nodes

- [sensor node](#)
- [si node](#)
- [power node](#)
- [WillyWRT](#)

Components

- [ROS master](#)
- [New ROS master on Ubuntu](#)
- [Brain](#)

- [Sonar](#)
- [Lidar](#)
- [Localization and navigation](#)
- [Motor controller](#)
- [Joystick](#)
- [Social interaction](#)
- [Speech](#)
- [Speech recognition](#)

Skylab

- [Setup Skylab](#)
- [Python scripts](#)
- [Webserver](#)
- [Functions of the webserver](#)
- [Skylab servers](#)
- [ROS installation on Ubuntu VMs in Skylab](#)
- [DNS,DHCP, pfSense & Ubuntu](#)

Radeffect App

- [Radeffect App](#)

Lessons learned

- [Todo & Advice](#)
- [Lessons Learned](#)

Archive

- [Previous Groups](#)
- [Research Archive](#)

1. ROS master

The ROS master will be used as servicebus between the different nodes. The ROS master node provides naming and registration services to the rest of the nodes in Willy. It tracks publishers and subscribers to topics. The role of the ROS Master is to let the nodes interact with each other without a direct connection.

1.1. Repository

[Windesheim-Willy/ROS-master](#)

1.2. How to run?

To run only the ROS master the Docker can be used. The Dockerfile of ROS master is automatically built on Dockerhub.

[windesheimwinny/ros-master](https://hub.docker.com/r/windesheimwinny/ros-master)

Run the build docker image:

```
docker-compose up
```

For development purposes it can be usefull to build the Dockerfile locally and to use this image. The docker-compose.build.yml file builds first the image and after the build start the container.

```
docker-compose -f docker-compose.yml -f docker-compose.build.yml up
```