

Table of Contents

1. IMU.....	2
1.1. Repository.....	2
1.2. Prerequisites	3
1.3. How to run?	3
1.4. Wire	3
1.5. set setpoint to 0	3
1.6. Background	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](#)
- [ROS topic design](#)

Hardware nodes

- [sensor node](#)

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

Components

- [ROS master](#)
- [New ROS master on Lubuntu](#)
- [Brain](#)
- [Sonar](#)
- [Lidar](#)
- [Localization and navigation](#)
- [Motor controller](#)
- [Joystick](#)
- [Social interaction](#)
- [Speech](#)
- [Speech recognition](#)

Radeffect App

- [Radeffect App](#)

Lessons learned

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

Archive

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

1. IMU

The IMU sensor (pose tracking) is used to get a higher accuracy for navigation.

1.1. Repository

[Windesheim-Willy/pose_tracking](#)

1.2. Prerequisites

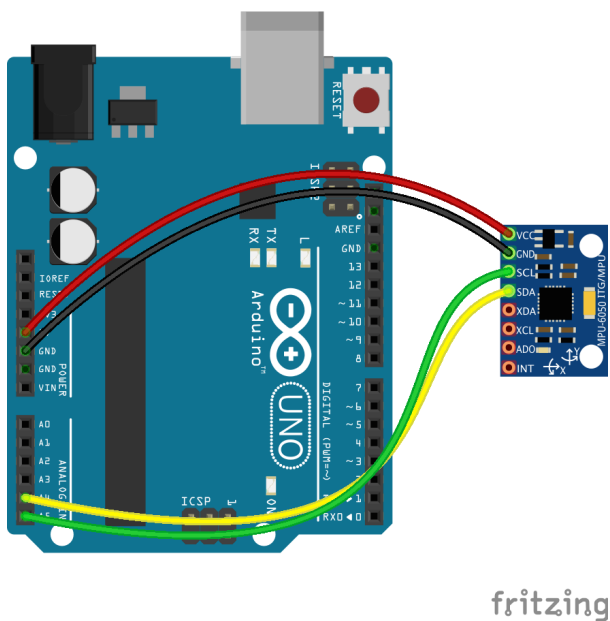
The IMU sensor (Arduino) must be connected to the Sonar PI.

1.3. How to run?

The pose tracking will start automatic when the PI is running. The pose racking node can be started manually by going into the root of the pose tracking repo:

```
./START start
```

1.4. Wire



1.5. set setpoint to 0

Sometimes it is needed to set the setpoint to 0. The command to do this is as follows:

```
rosservice call /imu/set_zero_orientation
```

1.6. Background

The IMU data that is published on the topic, is used by move_base.