### **Table of Contents**

• Kinect

• Localization and navigation

Table of Contents
1. Power node
1.1. Repository
1.2. Components
Welcome
Project Willy
History of Willy
Project Willy
• Publicity
• Sponsors
Getting started
• Introduction to ROS
Development Guide
Driving Willy
• Manual
• Wiki Manual
Build of Willy
• Design history
• Hardware
Architecture
Software Architecture
ROS topic design
Raspberry Pi's
• Sensor node
Social Interaction node
• Power node
Components
• ROS master
New ROS master on Lubuntu
• Sonar
• Lidar

- Motor controller
- Joystick

#### Lessons learned

- Todo & Advice
- Lessons Learned

#### **Archive**

- Previous Groups
- Research Archive
- Skylab Architecture
- Skylab
- Multi master
- WillyWRT
- Realisation
- Hardware
- Brain
- Design Guild
- Social interaction
- Speech
- Speech recognition
- IMU
- Human Detection
- Radeffect App

## 1. Power node

The power node is the centerpiece of Willy The Robot. It is a laptop with a powerful enough processor and plenty of memory to run the ROS core, autonomous driving algorithms and much, much more.

# 1.1. Repository

Windesheim-Willy/power\_node

## 1.2. Components

• Motor controller

- Human detection
- Brain
- Joystick
- Lidar
- Ros Master
- Navigation stack