

element14: How to use EnOcean Pi with Raspberry Pi

Overview:

Source: [EnOcean Pi](#)

EnOcean Pi transforms Raspberry Pi into a gateway, allowing wireless communication with thermostats and switches around your home, thus automating temperature and lighting systems. It provides a bi-directional radio interface and a bi-directional serial interface.

This document provide you a step-by-step guide on how to use EnOcean Pi with Raspberry Pi:

Step-By-Step Guide:

If you have an Raspberry Pi and an EnOcean Pi you can use EnOcean Link with Raspberry Pi to compile the code for Raspberry Pi. EnOcean Link is a powerful library for EnOcean Pi to handle packets, telegrams and messages received in an ESP3 Format.

First connect the Raspberry Pi and EnOcean Pi with extension board on Raspberry Pi as shown below:



To run the EnOcean Link on Raspberry Pi, you need to download the EnOcean Link source code from here: ([Download](#)). After downloading the EnOcean Link you can compile it directly on Raspberry Pi or compile it on an PC and deploy it on Raspberry Pi (*please refer: [How to Compile for Raspberry Pi](#)*). Then simply copy the resource or use remote deployment, for the start you can either play with **Hello World** or one of the tutorials.

For your convenience, here's the summary of the steps:

- Set up your Raspberry Pi (as shown above) and download EnOcean Link ([Download](#)).
- Now you need to specify the right serial port of your gateway connected to your Raspberry Pi, please adjust the defines as below:

```
sudo chmod 777 /dev/ttyAMA0
```

Then you use this define:

```
#define SER_PORT "/dev/ttyAMA0"
```

- Cross compile EnOcean Link for Raspberry Pi (*please refer: [How to Compile for Raspberry Pi](#)*).
- Deploy the binaries (*please refer: [How to Compile for Raspberry Pi](#)* or copy).

- When needed set the access rights of your gateway connected to your Raspberry Pi:

sudo chmod 777 /dev/ttyAMA0

- Run it. Please remember to follow the licensing of EnOcean Link - Trial License Agreement . Enjoy.

Makefile:

This section will help you to compile EOLink from the makefile. There are three possibilities:

- ReleaseLib - EOLink library with release compiler settings
- DebugLib - EOLink library with debug compiler settings
- DebugSandbox - Example EOLink application

After starting the command prompt, navigate to the directory of the main makefile called makefile. For example to compile ReleaseLib, you should do this:

```
#:~/workspace$ cd EOLink/ReleaseLib/  
#:~/workspace/EOLink/ReleaseLib$ make all
```

This compiles EOLink and generates library libEOLink.a in the directory. The DebugSandbox generates EOLink executable.