# BlueZ with MIDI over BLE Support

Pieter P

This is an installation guide for the latest version of BlueZ, the official Linux Bluetooth protocol stack, on Ubuntu.

I used this to get MIDI over BLE working on Ubuntu 16.04.

## **Installing the Dependencies**

Use your package manager to install the following dependencies:

```
$ sudo apt install libudev-dev libical-dev libreadline-dev libdbus-1-dev libasound2-dev
```

You'll also need the usual build tools, so install them as well if you haven't already:

```
$ sudo apt install build-essential
```

### **Downloading BlueZ**

You can download the latest version from <a href="www.bluez.org">www.bluez.org</a>, or download it directly from the command line. Then extract the file you downloaded.

```
$ cd /tmp
$ wget https://mirrors.edge.kernel.org/pub/linux/bluetooth/bluez-5.50.tar.xz
$ tar -xf bluez-5.50.tar.xz
```

#### **Building and Installing BlueZ**

Finally, run the configure script and make and install everything. Also reinstall the version from the package manager, as explained here.

```
$ cd bluez-5.50
$ ./configure --enable-midi --with-systemdsystemunitdir=/etc/systemd/system
$ make
$ sudo make install
$ sudo apt-get install --reinstall bluez
```

That's it! After rebooting, MIDI over BLE should work.

The first time after rebooting, my computer seemed kind of slow, but rebooting again solved that problem.

#### **Shell Script**

Here's a shell script that executes the previous steps for you.

#### bluez.sh

```
sudo apt-get install -y \
libudev-dev libical-dev libreadline-dev libdbus-1-dev libasound2-dev \
build-essential

cd /tmp
wget https://mirrors.edge.kernel.org/pub/linux/bluetooth/bluez-5.50.tar.xz
tar -xf bluez-5.50.tar.xz

cd bluez-5.50
./configure --enable-midi --with-systemdsystemunitdir=/etc/systemd/system
make
sudo make install
sudo apt-get install --reinstall bluez
```

You can download it here. Then allow execution and run it:

```
$ chmod +x bluez.sh
$ ./bluez.sh
```

## **Tested on**

• Ubuntu 16.04 - BlueZ 5.50