# Raspberry Pi connect Bluetooth beacon tutorial

1. Setup the beacon devices.
   1. Minew

<https://filesharecpsl.s3.amazonaws.com/MiniBeacon+Instructions_MiniBeacon_2.06.pdf>

**BeaconSET:** mobile app to config directly.

**Make sure you can find your beacon devices through the each APP first!**

1. Setup Raspberry Pi

Just insert the default SD card. There is already Respbian OS in it.

We start from here:

<https://projects.raspberrypi.org/en/projects/raspberry-pi-setting-up/3>

**Note:** Please set the password: cpsl

**Note:** You need to **enable SSH**

**Note:** We may need to change the hostname to differentiate different Pis

**Note:** Please change the **hostname**: anchor + {number}, (e.g. anchor5)

**Copy following zip and run to set up the WiFi (WUSM-secure):**

<https://filesharecpsl.s3.amazonaws.com/wifi.zip>

unzip wifi.zip

cd wifi

sudo chomod +x ./setup\_wifi.sh

sudo ./setup\_wifi.sh

Make sure the WiFi is connected after running the script.

1. Install our ble\_scan software

Download here: <https://github.com/littlesi789/bletransmit>

wget "https://github.com/littlesi789/bletransmit/archive/master.zip"

Extract all the files into Raspberry Pi in folder “bbct”, then go the folder:

sudo chomod +x ./install.sh

sudo ./install.sh

All the requirements will be auto installed by this script, and it will also setup the background service to collect all beacons and store into database.

**Note:** you can change the database address to your local machine. The default is “bbct-cpsl.engr.wustl.edu”.

**Note:** you can ssh into your pi to check the program log by:

sudo journalctl -fu ble\_scan

Make sure there is no error showing in the log, and you can see your beacon messages.