

Integrating Bouffalo Lab Zigbee (BLZ) Radios with Home Assistant ZHA

This guide outlines the steps to add support for Bouffalo Lab Zigbee (BLZ) radios (BL702/4/6) into Home Assistant's Zigbee Home Automation (ZHA) integration.

Prerequisites

- Home Assistant environment already set up
- Python 3.12 installed and configured

Steps

1. Install the zigpy-blz

1. Clone the zigpy-blz repository:

```
git clone https://github.com/bouffalolab/zigpy-blz.git
```

2. Change directory to the cloned repository:

```
cd zigpy-blz
```

3. Install the zigpy-blz package:

```
sudo YOURHOMEASSISTANTFOLDER/bin/pip3.12 install -e .
```

2. Modify ZHA Integration

1. Navigate to your ZHA application's constants file:

```
cd YOURHOMEASSISTANTFOLDER/lib/python3.12/site-packages/zha/application/
```

2. Open const.py with your preferred text editor, e.g., vim or nano:

```
vim const.py
```

3. Add the following import statement at line 15:

```
import zigpy_blz.zigbee.application
```

4. Update the blz entry at line 125 to include the BLZ radios:

```
blz = (  
    "BLZ = Bouffalo Lab Zigbee radios: BL702/4/6",  
    zigpy_blz.zigbee.application.ControllerApplication,  
)
```

3. Configure Logging (Optional)

1. Open the configuration.yaml file in your Home Assistant configuration directory:

```
vim YOURHOMEASSISTANTFOLDER/.homeassistant/configuration.yaml
```

2. Add the following logging configuration:

```
logger:
  default: info
logs:
  homeassistant.components.zha: debug
  zigpy: debug
  zigpy_blz: debug
```

4. Remove the prompt “not in the recommended radio list” (Optional)

1. Navigate to your homeassistant ZHA integration folder:

```
cd YOURHOMEASSISTANTFOLDER/lib/python3.12/site-
packages/homeassistant/components/zha/
```

2. Added the blz to recommended radio list

```
vim radio_manager.py#L53
```

```
RECOMMENDED_RADIOS = (
```

```
    RadioType.ezsp,
```

```
    RadioType.znp,
```

```
    RadioType.deconz,
```

```
    RadioType.blz,
```

```
)
```

5. Restart Home Assistant

- Restart your Home Assistant instance to apply the changes.

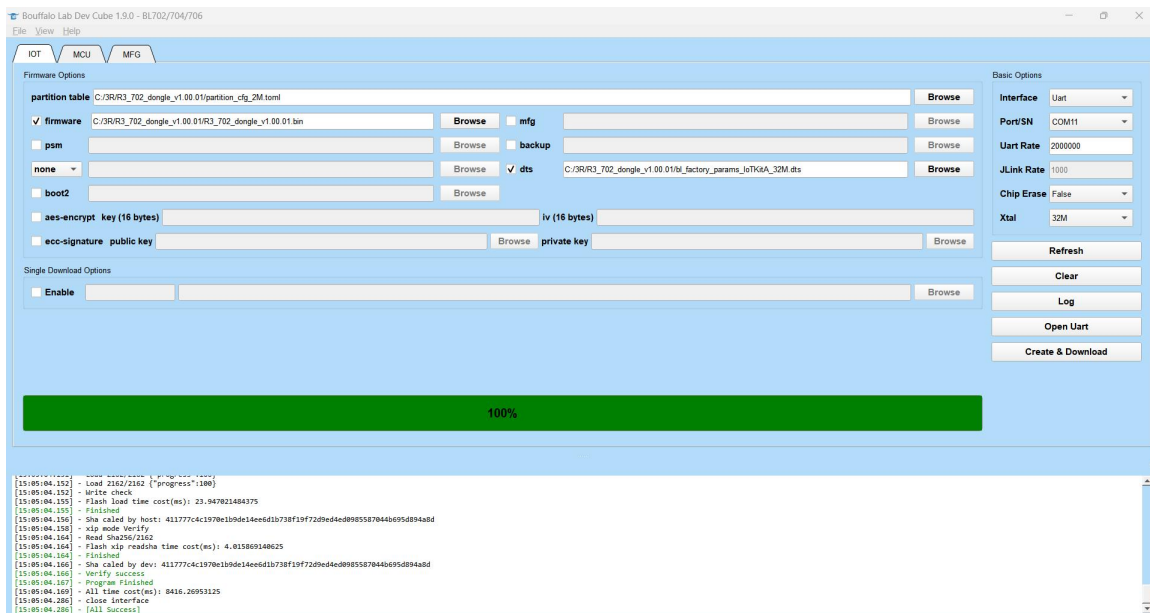
6. Get Hardware

Here we use [Third Reality Zigbee Dongle 3RZD02032Z](#) as an example.

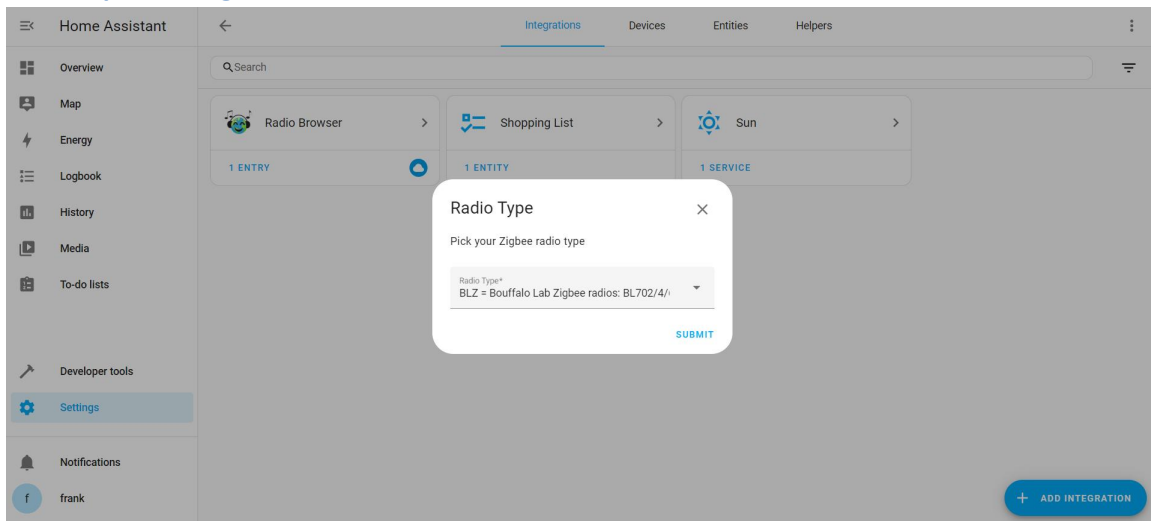
7. Flash Firmware

To ensure the BLZ radios operate correctly, you may need to flash the appropriate firmware onto your device. Follow these steps:

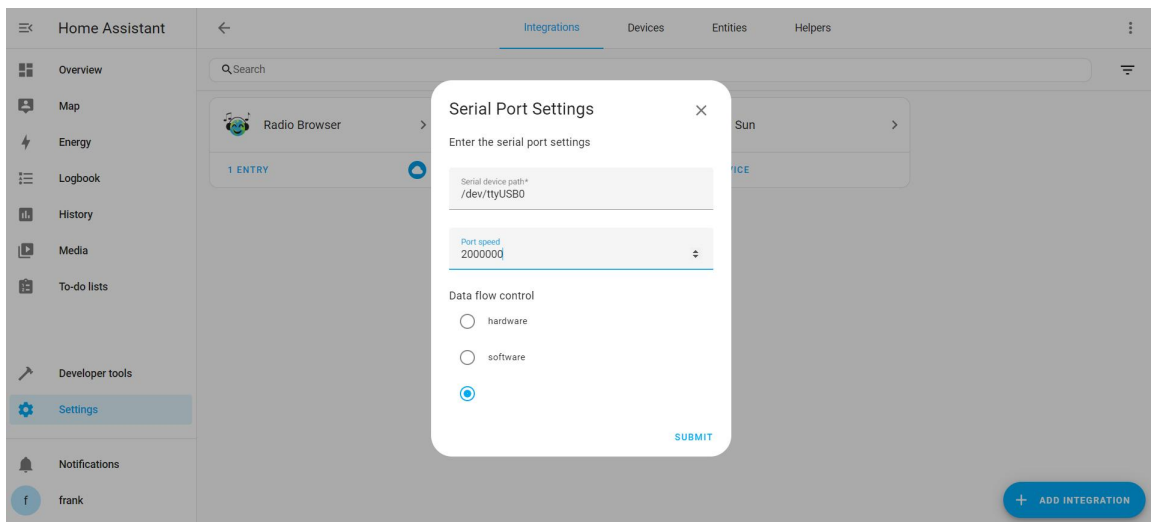
1. Download the latest firmware for your specific Bouffalo Lab Zigbee radio model from the official website or repository. For this example, we will use the [firmware](#) released by Third Reality for the Zigbee Dongle (3RZD02032Z).
2. Connect the dongle to your computer and enter boot mode by pressing and holding the button inside the pinhole during power-up. Release the button after the device is powered on.
3. Flash the firmware using the [Bouffalo Lab Dev Cube](#) or [bflb_iot_tool](#). In this example, we will use the Bouffalo Lab Dev Cube.



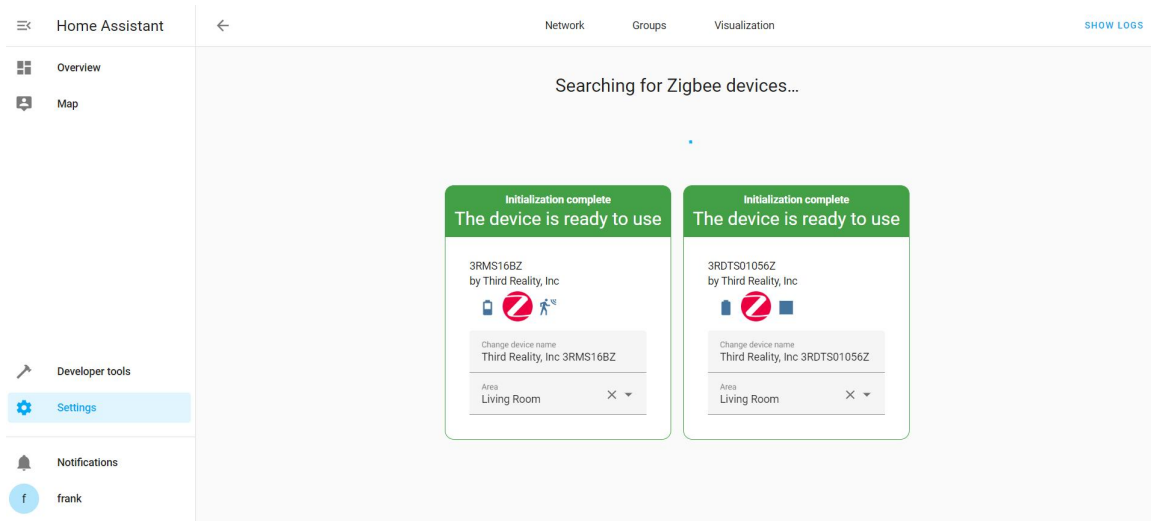
8. Set up the dongle in ZHA



Auto-probing is not supported at the moment. After the auto-probe attempt, manually select the BLZ radio



Set the port speed to be 2000000



Add devices and enjoy Zigbee!