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# Installing Wi-Fi and PrusaLink (MINI/+)

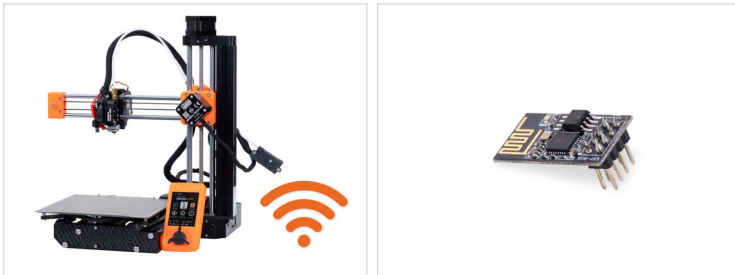


[help.prusa3d.com/g316781](https://help.prusa3d.com/g316781)

**Scan the QR code to  
display the latest  
version of this  
chapter.**



## STEP 1 Introduction



- ◆ This guide will take you through the **Wi-Fi module** installation and configuration on the **Original Prusa MINI/MINI+**.



**Wi-Fi runs on firmware 4.4.0 or higher.**



See the **PrusaLink and Prusa Connect** article for more information about these services.

## STEP 2 Purchasing Wi-Fi (ESP) module



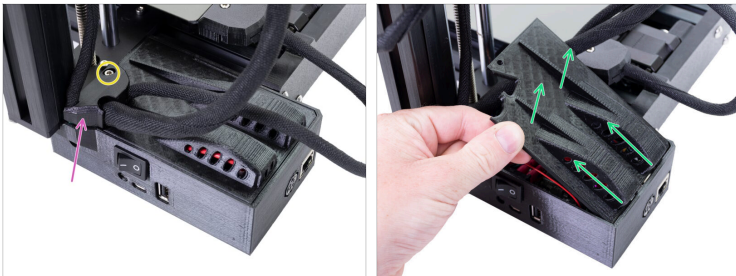
- ◆ In order to make the Wi-Fi work, you must purchase ESP Wi-Fi module. Specifically ESP-01S or ESP-01, which is based on the ESP8266.
- ◆ It is recommended to buy the version with 1 MB of flash memory or more.
- ◆ You can purchase the Wi-Fi module:
  - ◆ directly on the Prusa e-shop
  - ◆ or check this table maintained by the community, which includes multiple module manufactures.

### STEP 3 Tools necessary for this guide



- For this guide, please prepare:
- 2.5mm Allen key

### STEP 4 Opening the electronics



- ⚠ **Unplug the printer** from the power supply to prevent any damage!
- Release and remove the M3 screw on top of the electronics box.
- Remove the printed cable cover.
- Lift the electronics cover slightly. Then pull it to the front and remove it from the printer.

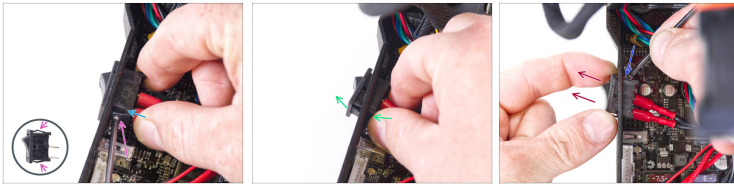
## STEP 5 Checking the electronics



**!** Wi-Fi feature is supported across all revisions of the Buddy control board. However, please note the version number onto a piece of paper. Let us know this detail in case you have any issues.

◆ Take a closer look at the Buddy control board to see which version you have.

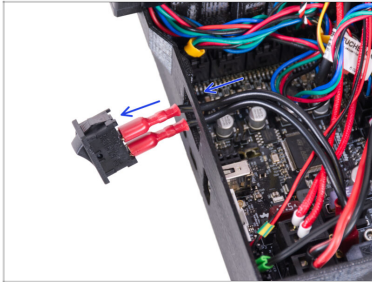
## STEP 6 Removing the power switch



**⚠ ATTENTION:** Removing the power switch might require patience due to tighter print tolerances. Take your time and be careful. **Goggles are recommended!**

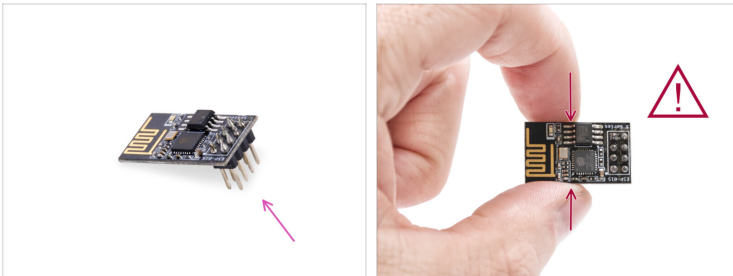
- ◆ There are two safety latches on the sides of the power switch. Use the Allen key to push the first latch from the "USB side".
- ◆ While pressing the latch, push the "USB side" of the power switch out of the box.
- ◆ Push on the power switch and tilt the side with the pressed latch out.
- ◆ Push the second latch on the other side of the power switch.
- ◆ Pull the power switch out of the box.
- ⓘ You can also use needle-nose pliers to squeeze the latches.

## STEP 7 Removing the power switch



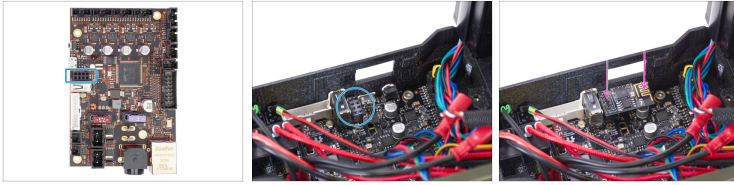
- Push the power cables through the hole out of the electronics box. Leave it free. This will prevent the cables from interfering with the ESP module during the installation.

## STEP 8 Installing the ESP module: parts preparation



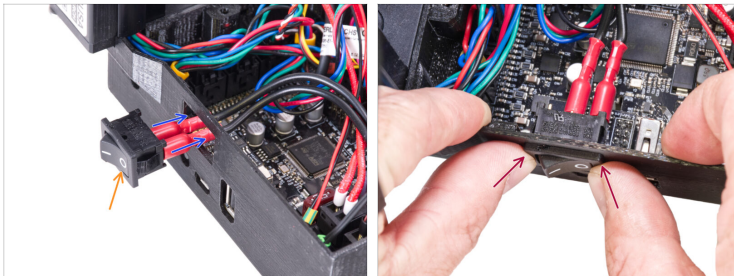
- **For the following steps, please prepare:**
- **ESP Wi-Fi module (1x)**
  - ⚠ **It is recommended to use ESD (Electrostatic discharge) gloves. Always **grab the ESP module by its edges!****
- **USB drive (1x) with at least 10 MB of free space.**

## STEP 9 Installing the ESP module



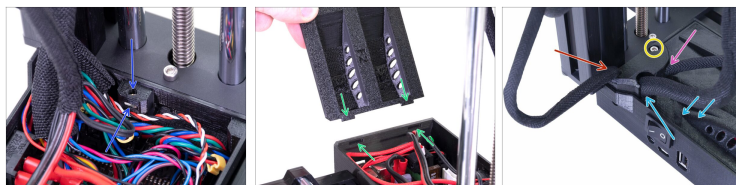
- ◆ Locate the 8-pin header connector on the Buddy control board.
- ◆ Plug the ESP module into the 8-pin header. See the correct orientation in the picture.
- ⚠ **Make sure that the ESP module is correctly and completely plugged into the connector.**

## STEP 10 Connecting the power switch



- ◆ Push the power cables back into the electronics box.
- ◆ Make sure that the OFF "o" symbol is on the right.
- ◆ Insert the switch into the opening in the box while holding the edges of the box until the switch clicks in.

## STEP 11 Covering the electronics



- ◆ Before covering the electronics, make sure the square nut is correctly positioned in the printed part. **The nut must not fall out!** This can cause fatal damage to the electronics.
- ◆ Insert the cover back in, make sure it is properly seated in the holes.
- ◆ **Place the second cover on the top and arrange the cables:**
  - ◆ **Extruder bundle**, ensure the textile sleeve is partially in. Also, it must be tilted away from the printer.
  - ◆ **Heatbed bundle**, ensure the textile sleeve is partially inside the box.
  - ◆ **Filament sensor cable** (optional), ensure that the textile sleeve wrapped around the cables is partially inside the box.
- ◆ Now, tighten the cable cover. Check that no cable is pinched.

## STEP 12 Downloading the firmware



**Wi-Fi runs on firmware 4.4.0 or higher.**



Connect the USB drive to PC.



On your PC, go to [help.prusa3d.com](https://help.prusa3d.com).



From the list of products, select Original Prusa MINI+.



Download the latest firmware.

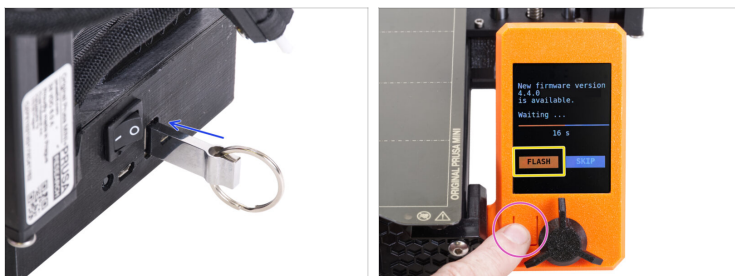


Extract the zip file and save the firmware file (.bbf extension) on the USB drive.



Select the corresponding firmware file supporting your language.

## STEP 13 Flashing new firmware



- ◆ Connect the USB drive to the printer.
  - ◆ Connect printer to the power supply and turn it ON.
  - ◆ Confirm the update by selecting the FLASH button on the screen.
- ⓘ If you have trouble updating the firmware, check Firmware updating MINI article. When updating from some very old firmware versions, you might need to update to version 4.4.1 first (this version included a new bootloader), and then to 5.1.0 or newer. Note, that when flashing the version 4.4.1, you have to load BOTH .bbf files onto the USB drive.


## STEP 14 Flashing new bootloader and firmware




- ◆ Confirm the update by selecting the FLASH button. Both bootloader and firmware will flash automatically.
- ◆ Wait until the process is completed. **It will take several minutes, several restarts, because multiple flashing stages are necessary. Please be patient!!!**
- ⚠ **Do not remove the USB flash drive during the installation! This can fatally damage the electronics.**
- ◆ Keep the USB drive connected to the printer.
- ◆ After flashing the firmware, you will be prompted to proceed with the setup Wizard. It is not necessary to proceed with the setup Wizard (all values from the previous version are saved without any changes) but recommended to check that all functions are working correctly.

## STEP 15 Continue to Wifi and PrusaLink setup



 For current firmware versions (5.1.0 or newer), please **continue to the Wi-Fi and Prusa Connect/Link setup (CORE One, MK4/S, MK3.9, MK3.5, XL, MINI/+)** guide.

 If you use an old firmware version 4.4.1 or 4.4.0, continue to the next step.

## STEP 16 Setting up the Wi-Fi module (FW4.4.x)



**⚠ Do not disconnect the USB drive from the printer until prompted.**

◆ Upon the Wizard, you will be greeted by a Wi-Fi wizard.

ⓘ If not, on the LCD screen navigate to *Home* -> *Settings* -> *Network* -> *Wi-Fi* -> *Setup Wi-Fi module*.

◆ A link with a QR code to this manual appears on the screen. Click on *Continue*.

## STEP 17 Setting up the Wi-Fi module



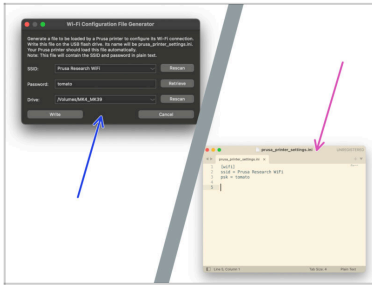
- ◆ The printer will now update the Wi-Fi module firmware.
- ⚠ **Do not unplug Wi-Fi or turn off the printer!**
- ⓘ The update may take several minutes. Please wait until it is complete.
- ◆ After a successful update, click Continue.
- ◆ On the next screen, click Continue. We will need to create your credentials first.

### STEP 18 Setting up the Wi-Fi module



- ◆ In this step, the printer creates the necessary configuration files on the USB drive. Click on Continue.
- ◆ The config files are created on the USB drive. Click on Continue and disconnect the USB drive from the printer.
- ◆ After the next screen appears, leave the printer as it is for now. We must set up the config file first. Go to the next step.

### STEP 19 Editing the configuration file

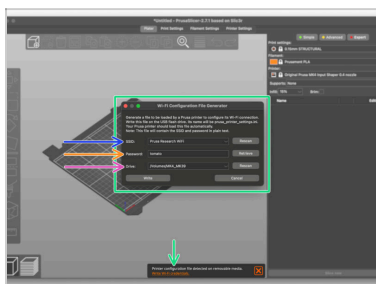


There are two main ways to fill in credentials for a Wi-Fi connection:

- Using **PrusaSlicer** (recommended) - let's take a look at this in step Editing the configuration file (PrusaSlicer)
- Using a **text editor** - let's look at this in step Editing the configuration file (text editor)

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## STEP 20 Editing the configuration file (PrusaSlicer)

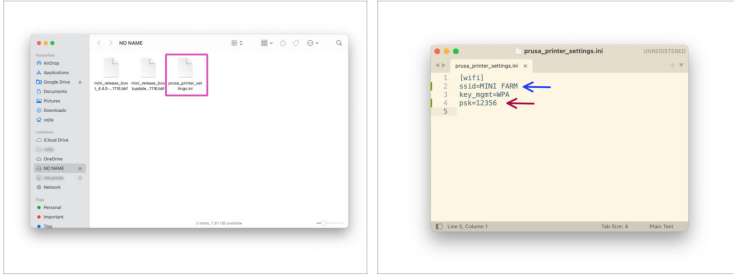


- Run PrusaSlicer on your computer.
  - ① Make sure you have **PrusaSlicer version 2.7.0 or later**. Older versions do not support this feature. You can download the latest version of PrusaSlicer on [prusaslicer.org](https://prusaslicer.org)
- Connect the **USB drive** to your computer.
- Once the USB is connected, the program will display a dialog box for you to fill in the credentials for your Wi-Fi. Alternatively, you can access the window by clicking on the message at the bottom.  
**In which you fill in:**
  - **SSID:** Select or write down the name of the Wi-Fi network you want to connect your printer to.
  - **Password:** Write down the Wi-Fi password. Make sure nobody is watching!
  - **Drive:** Keep the selected USB drive from your printer
- Click the **Write** button to save the settings.

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## STEP 21 Editing the configuration file (text editor)

## Installing Wi-Fi and PrusaLink (MINI/+)



**i** This method of entering Wi-Fi credentials using a text editor is an alternative to using PrusaSlicer. If you have chosen the PrusaSlicer (previous) method, proceed to the next step.

Connect the USB drive to PC.

Locate the *prusa\_printer\_settings.ini* file on the USB drive created by the printer. Open the file in any text editor.

Go to the second line named **ssid=** and write down the name of the Wi-Fi network you want to connect your printer to.

**i** Note: The ESP Wi-Fi module (ESP-01S, ESP-01) has a built-in Wi-Fi interface that supports 802.11 b/g/n 2.4 GHz networking. Your 5Ghz network will not work. **Enter your 2.4Ghz SSID.**

**!** Do not change the **key\_mgmt** value. Keep the WPA as default.

Now, go to the fourth line named **psk=** and write down the Wi-Fi password. Make sure nobody is watching!

Save the file on the USB drive.

## STEP 22 Finishing the Wi-Fi settings



- Return to the printer. Connect the USB drive into it and click on Continue.
- Wait until the files are copied from the USB drive to the printer. **Do not disconnect the USB drive while copying.**

### STEP 23 Wi-Fi part is done!



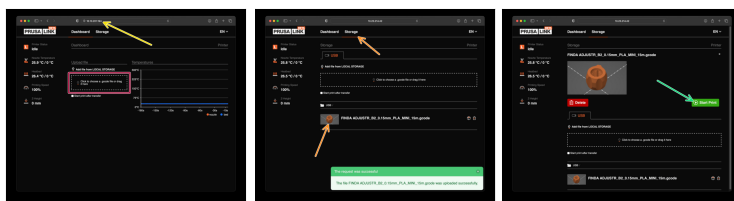
- ◆ The installation of the Wi-Fi module has been successfully completed. The printer will now search for the Wi-Fi connections according to your credentials. It may take several minutes. Click on Continue.
- ⚠ **Once the credentials are uploaded, it might take up to several minutes to connect the printer to the network.** Especially with a weak signal or in crowded networks. Please be patient or move the printer closer to your Wi-Fi access point.
- ⓘ If nothing happens after 5 - 8 minutes, connect the USB drive to your PC and check again your credentials in the *prusa\_printer\_setting.ini* file. Connect the USB drive to the printer and on the LCD navigate to *Settings -> Network -> Wi-Fi -> Load credentials* and follow the instructions on the printer.
- ◆ As soon as the Wi-Fi is connected successfully, you will be informed. Click on Continue.
- ◆ After successful setup and established connection, you will see a bright Wi-Fi icon in the top status bar of the display.
- ◆ Follow instructions in the next step to obtain printer's IP address and API-key.

## STEP 24 Getting the IP and API-key



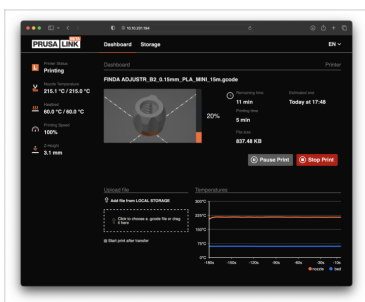
- To access PrusaLink or connect PrusaSlicer with your printer, you have to know printer's **IP address and API-key**.
- On the screen, navigate to **Home > Settings > Network**, there is the IP address of your printer.
- From the Network menu, navigate to **PrusaLink > Current API Key** line. (for example neQQogERuMo4RNd).
- **Note down both IP Address and the API Key.**

## STEP 25 Printing using PrusaLink



- Open up a web browser on your computer. Insert the **IP address** into the address line and open it up as a webpage.
- Type in the **API Key** when prompted.
- To transfer a G-code to your printer, simply drag the file into the marked area of the web page.
- Make sure the printer is ready to print:
  - There must be a USB drive in the printer.
  - An empty and clean steel sheet must be attached on the heatbed.
  - The printer should be on the home screen. If there is any prompt on the LCD screen, the printer will reject any remote command.
- After the file is uploaded, open up the file details in the Storage tab. From here, you can Start Print.
- Start a Print.

### STEP 26 PrusaLink info



- 🛡️ **Good job!** You have successfully installed the Wi-Fi module and connected your printer to **PrusaLink**.
- 🛡️ Now, you can delete the configuration file from the USB drive for security reasons.
- 📌 Did you know, you can also use PrusaLink over the wired network using the Ethernet connector on the back of the printer? Visit **Settings > Network > Interface** to select the preferred connectivity option.
- 🛡️ If you plan to also use another printer type or just crave for more info, visit the [Prusa Connect and PrusaLink explained](#) article.



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