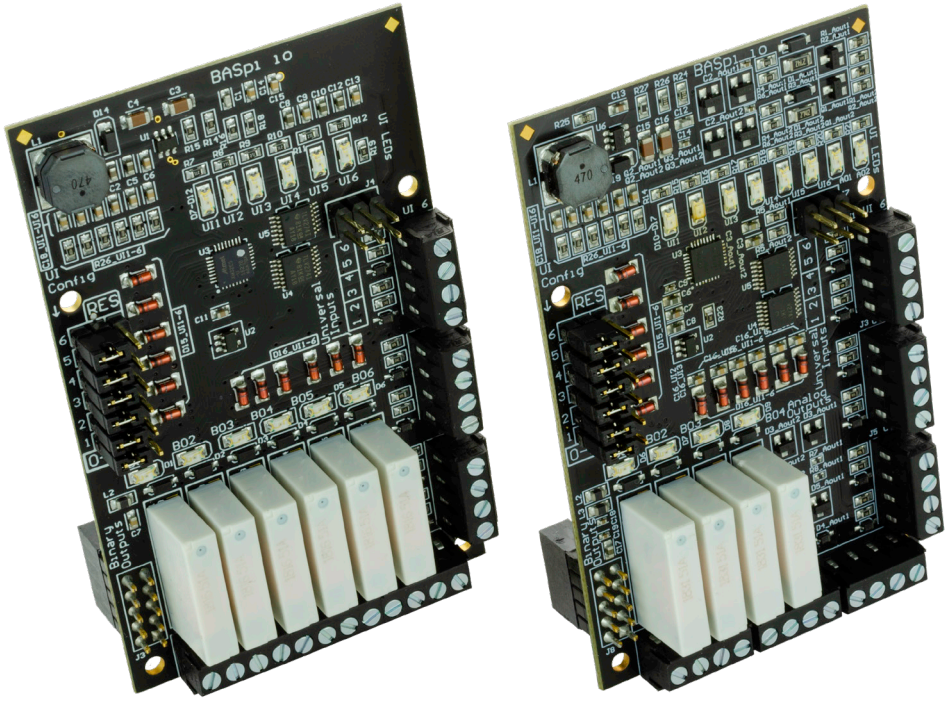
BASpi I/O Software Installation Guide

Choosing the right download to get your BASpi working is easy!

BASpi IO boards are compatible with Raspberry Pi 3 or 4. The latest BASpi and BASpiAO2 image files have been updated to Raspberry Pi OS (32-bit) - A port of Debian with Raspberry Pi Desktop Released 2021-01-11 with full support for Raspberry Pi 4. The ready-to-burn micro SD card image (Raspbian with Desktop + BASpi firmware files) is provided for each BASpi IO model.

Two BASpi-IO models exist (BASpi-IO6U6R or BASpi-IO6U4R2A), make sure to select the correct firmware file or image for your board.

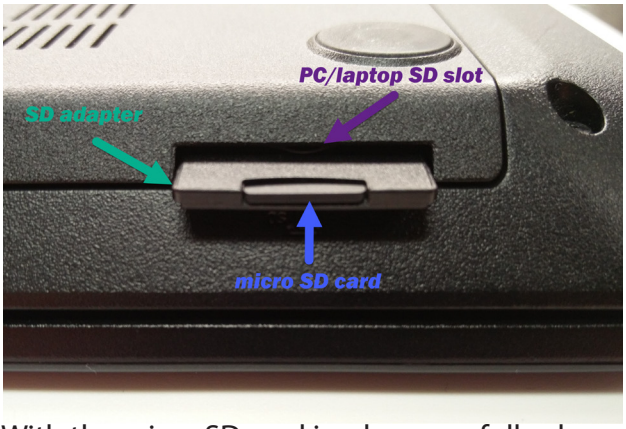


BASpi-IO Firmware Upgrade

If you already have a BASpi-IO board running an older version of the firmware, you can easily update your system. To update and preserve your project, simply use BASbackup project archive utility to backup your BASpi project first. Then burn the new image on it.

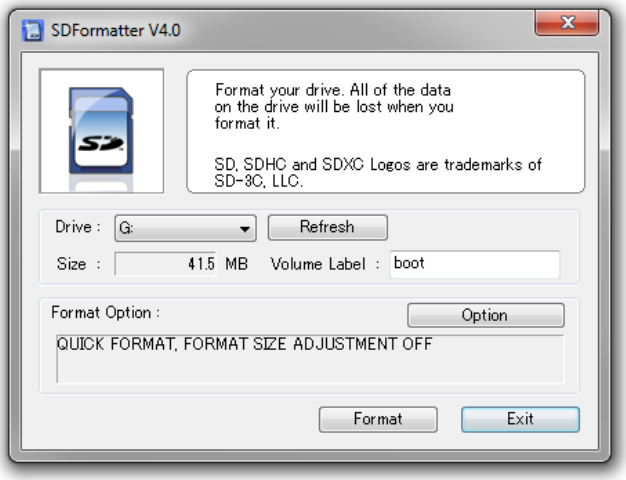
1. Download BASpi-X.X.X-Image.zip file from https://www.ccontrols.com/basautomation/baspisoftware.htm
2. You will need an 8 GB or larger micro SD card (we recommend pSLC micro SD cards for maximum system stability), a micro SD to USB adapter, or micro SD to SD adapter to insert into your PC.
3. If the micro SD card is not brand new, has been previously used, or you are unsure of its formatting, please format it before proceeding to write the BASpi image. You can download *and install the free SDformatter tool from the SD Association web site:*

   www.sdcard.org/downloads/formatter_4/
4. To format the card, use a micro SD to USB adapter or if your PC or laptop have an SD card slot, you could use a micro SD to SD card adapter. Insert it into your PC or laptop.



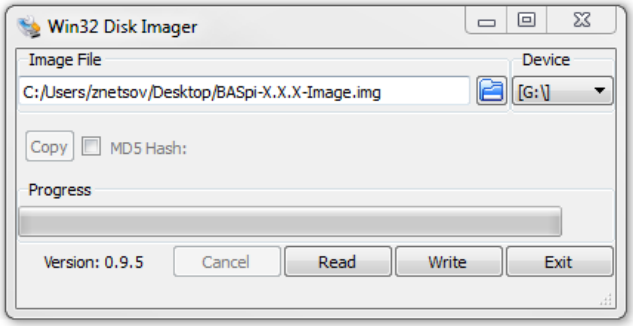
With the micro SD card in place carefully choose the Drive of the micro SD card (G: in example below) and click "Format".

NOTE: Make sure you choose the correct drive letter for your micro SD card, because if you accidentally choose another drive, it will format it! Make sure you have the correct drive selected.



5. Once the micro SD card is formatted, unzip the *BASpi-X.X.X-Image.zip* anywhere on your computer.
6. Next you will write the image onto the micro SD card. Use any tool for writing images to SD such as:

   Etcher (*https://etcher.io*) or *Win32DiskImager* (*https://sourceforge.net/projects/win32diskimager/*).



7. With the card inserted in your PC, point to the *BASpi-X.X.X-Image.img* file (blue folder icon in Win32DiskImager), choose the correct Drive (*G:* in the example) and flash it to the SD card by clicking "Write" button.

   NOTE: Make sure you choose the correct drive letter for your micro SD card, because if you accidentally choose another drive, it will overwrite it! Make sure you have the correct drive selected.

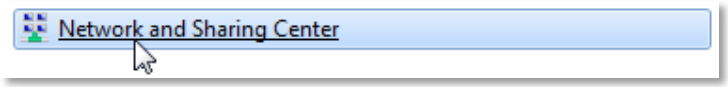
8. When the image burn is done, power off your Rasbery Pi, insert the micro SD card in the micro SD card slot, and make sure the BASpi-IO board is mounted on GPIO 1-10.
9. Power ON your Raspberry Pi. It will take 25 seconds to boot.
10. BASpi web server will be accessible on its default IP address of 192.168.92.68 with subnet mask of 255.255.255.0 and login credentials of username: admin and password: admin over its Ethernet port. The web server is used to monitor and configure BASpi IO channels, virtual points, web components and system settings. This web server can be configured for use over Ethernet or Wi-Fi. BACnet /IP server and Sedona Virtual Machine can also be configured from BASpi web page for use over Ethernet or Wi-Fi adapters.

Getting Started - Setting the IP address of your PC

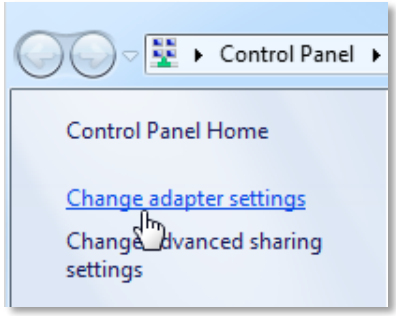
In order to connect to the BASpi at its default IP Ethernet address of 192.168.92.68 with subnet mask of 255.255.255.0 you must first temporarily configure your PC or laptop's Ethernet adapter to be in the same subnet as the BASpi.

To set your computer's IP static address in Windows 7 or Windows 8.x or Windows 10:

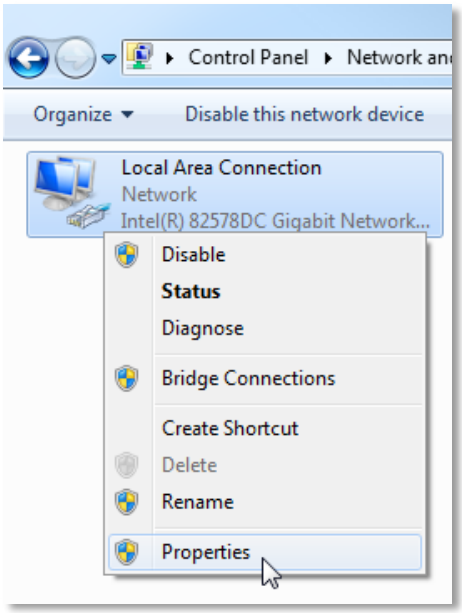
1. Type ***network and sharing*** into the search box in the Start Menu
2. Select ***Network and Sharing Center*** (which could also be found in Control Panel)



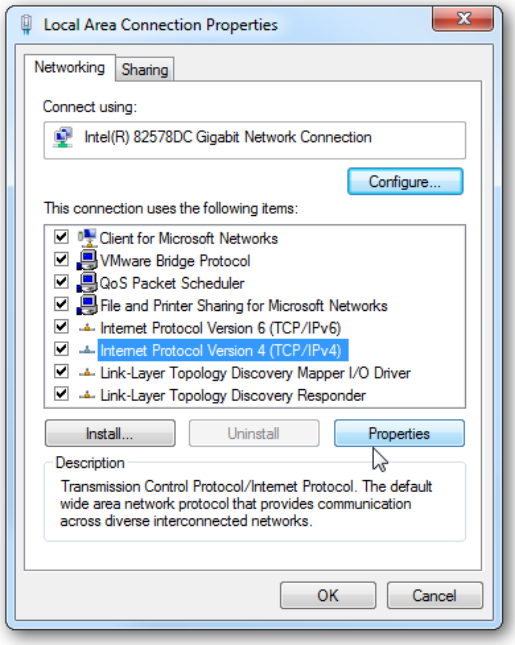
3. Click on **Change adapter settings**



4. Right-click on your network adapter and chose **Properties**



5. In the Local Area Connection Properties window highlight **Internet Protocol Version 4 (TCP/IPv4)** then click the **Properties** button.

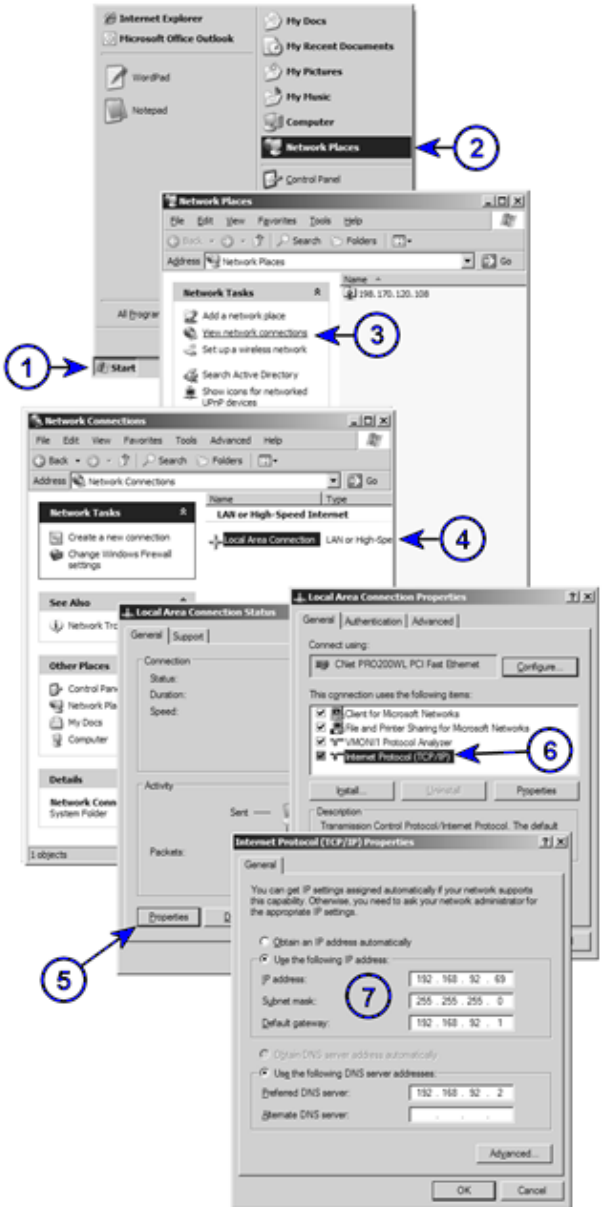


6. Your computer was most likely set for DHCP (Obtain an IP address automatically) select the radio button **Use the following IP address** and enter in 192.168.92.**69** (for example) in **IP address**.

Click on **Subnet mask** and 255.255.255.0 will be entered for you automatically. For **Default gateway** enter 192.168.92.1. Click **OK** and your network adapter IP address has been set.

To set your computer's IP static address in Windows XP:

1. Click **Start Menu**
2. Select **Network Places**
3. Click on **View network connections**
4. Open **Local Area Connection**
5. Choose **Properties**
6. Double-click to open **Internet Protocol (TCP/IP)** settings
7. Select **Use the following IP address**



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