



DIY Magic Mirror

Software Installation v4

LINUX

© DIY Magic Mirror

Linux DIY Magic Mirror Software Installation Instructions (Tested on UBUNTU 8 and 9)

1 You must have the Flash 9 Player or above already installed. If not, then obtain the Flash 9 Player or above from <http://adobe.com> and install first.

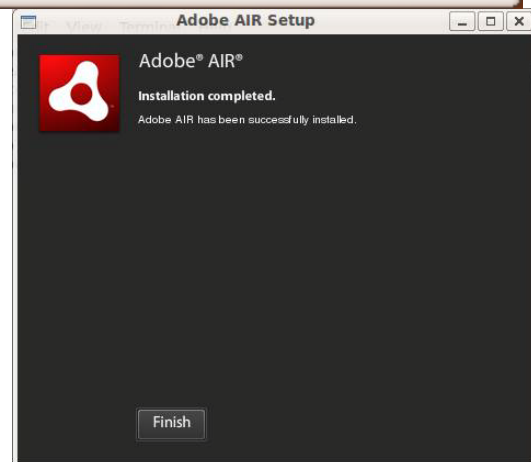
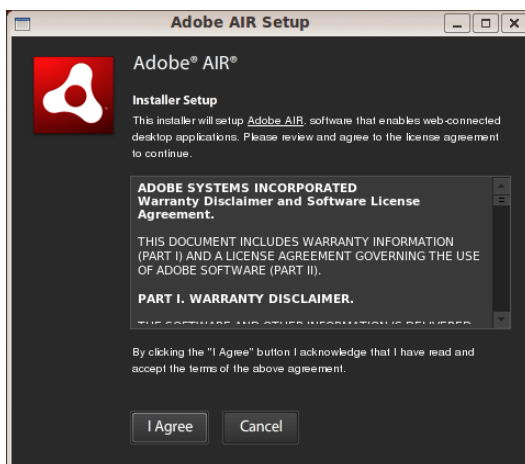
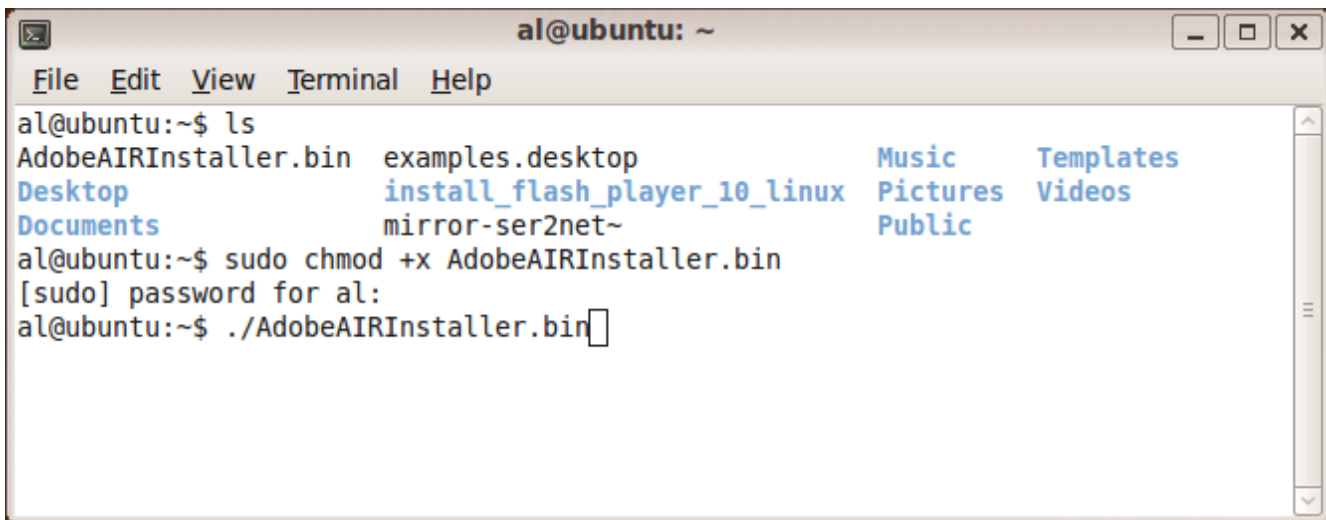
Install the Adobe AIR framework by downloading from <http://get.adobe.com/air/>. Open a Terminal command line window and type the following commands from the directory the file was downloaded to.

```
sudo chmod +x AdobeAIRInstaller.bin
Enter administrator password if prompted
./AdobeAIRInstaller.bin
```

Note if you are running 64-bit Linux and get this:

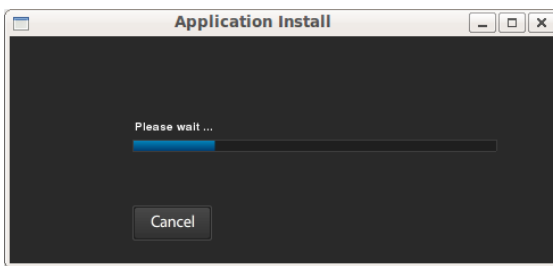
```
bash: ./AdobeAIRInstaller.bin: No such file or directory
```

Then follow these instructions to install Adobe AIR on 64-bit Linux:
http://kb2.adobe.com/cps/521/cpsid_52132.html

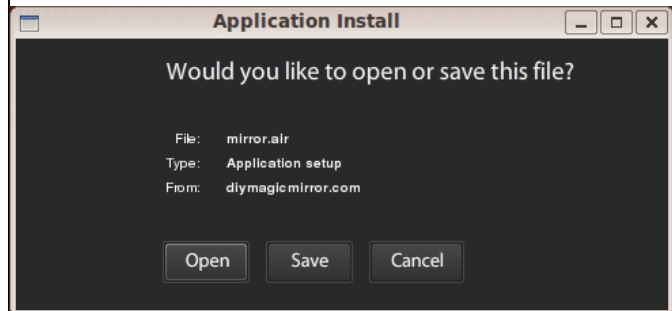


2 Go to <http://diymagicmirror.com/install-linux.html>

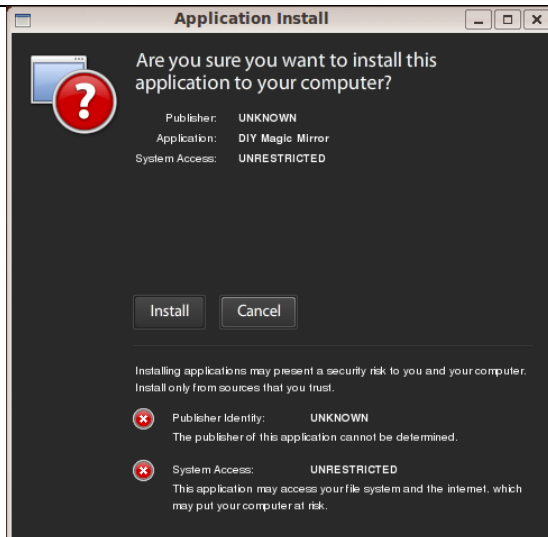
Click the < INSTALL STEP 1 > button and follow the installation instructions per below. **IMPORTANT: Do not change the default installation directory.**



The application installer (50 MB in size) will begin loading, this may take some time depending on the speed of your Internet connection

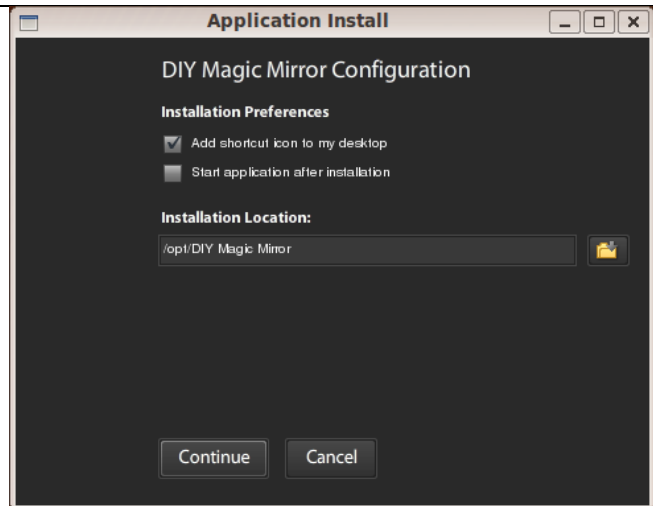


Click < Open >



Click < Install >

Enter your administrator password when prompted



Uncheck < Start application after installation > and click < Continue >. **IMPORTANT: Do not change the Installation Location.**

3a Click the < INSTALL STEP 2 > button and follow the same installation steps as the previous step.
IMPORTANT: Do not change the default installation directory.



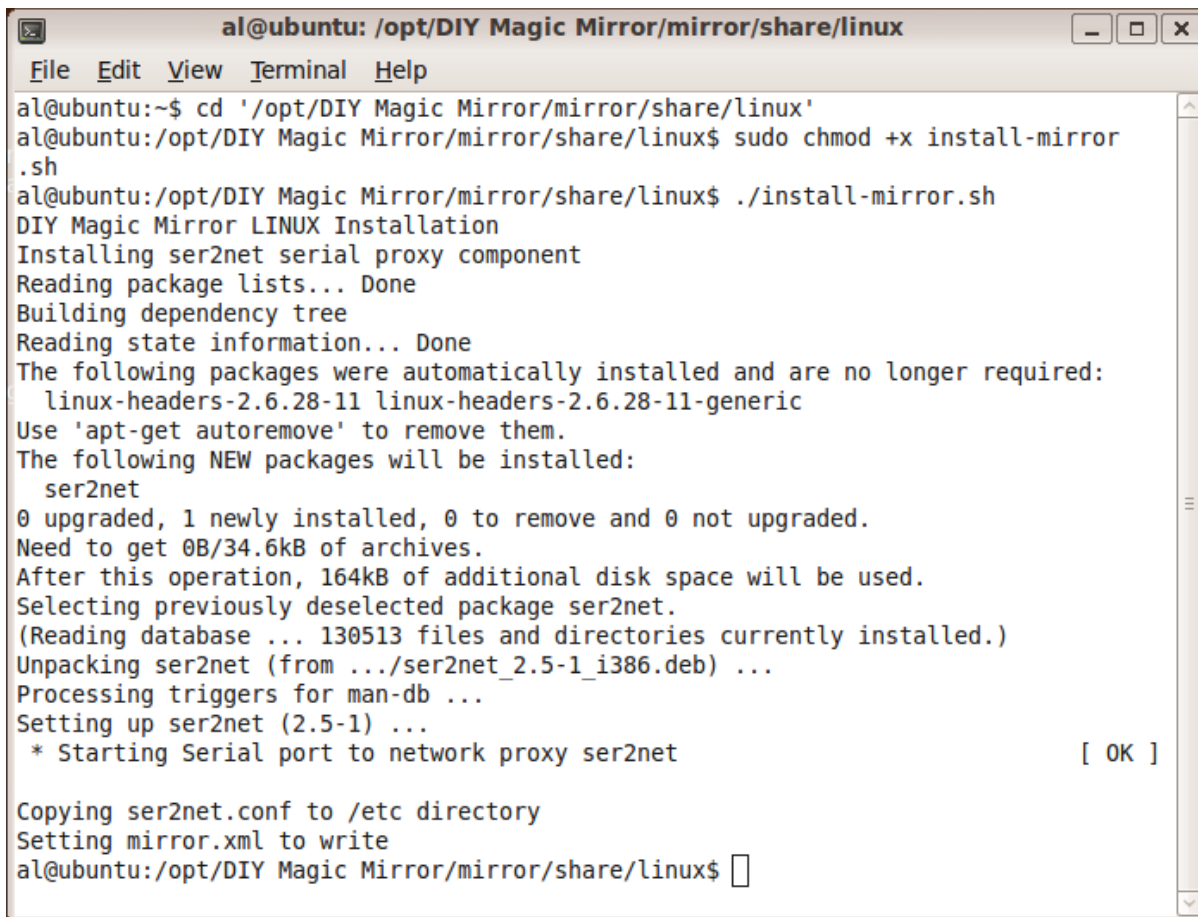
3b Create the directory: `opt/DIY Magic Mirror/mirror/share/videos`

Download <http://diymagicmirror.com/files/videos.zip> and unzip all files into this newly created directory.

4 Open a Terminal window and type the following commands:

```
cd 'opt/DIY Magic Mirror/mirror/share/linux'  
sudo chmod +x install-mirror.sh  
./install-mirror.sh
```

This will launch a script that will install the ser2net serial server and set it to run automatically on startup, copy the ser2net configuration file (ser2net.conf) to the /etc directory.

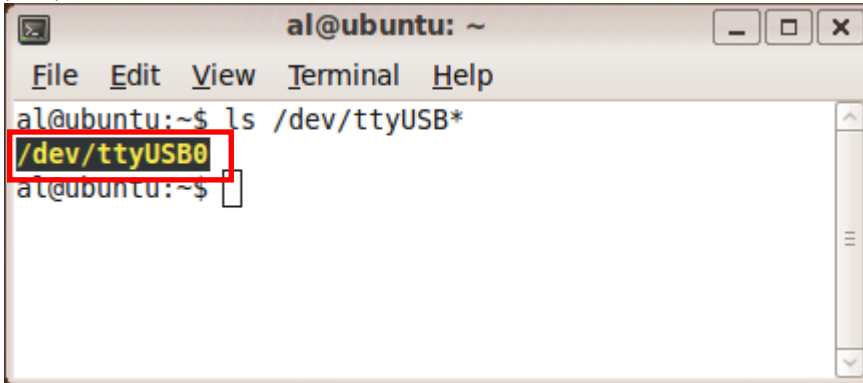


```
al@ubuntu: /opt/DIY Magic Mirror/mirror/share/linux  
File Edit View Terminal Help  
al@ubuntu:~$ cd '/opt/DIY Magic Mirror/mirror/share/linux'  
al@ubuntu:/opt/DIY Magic Mirror/mirror/share/linux$ sudo chmod +x install-mirror  
.sh  
al@ubuntu:/opt/DIY Magic Mirror/mirror/share/linux$ ./install-mirror.sh  
DIY Magic Mirror LINUX Installation  
Installing ser2net serial proxy component  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following packages were automatically installed and are no longer required:  
  linux-headers-2.6.28-11 linux-headers-2.6.28-11-generic  
Use 'apt-get autoremove' to remove them.  
The following NEW packages will be installed:  
  ser2net  
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.  
Need to get 0B/34.6kB of archives.  
After this operation, 164kB of additional disk space will be used.  
Selecting previously deselected package ser2net.  
(Reading database ... 130513 files and directories currently installed.)  
Unpacking ser2net (from ../ser2net_2.5-1_i386.deb) ...  
Processing triggers for man-db ...  
Setting up ser2net (2.5-1) ...  
  * Starting Serial port to network proxy ser2net  
[ OK ]  
  
Copying ser2net.conf to /etc directory  
Setting mirror.xml to write  
al@ubuntu:/opt/DIY Magic Mirror/mirror/share/linux$
```

5 Plug the Magic Mirror Sensor Hub or Arduino into your USB port. From a Terminal windows, type the following command.

`ls /dev/ttyUSB*`

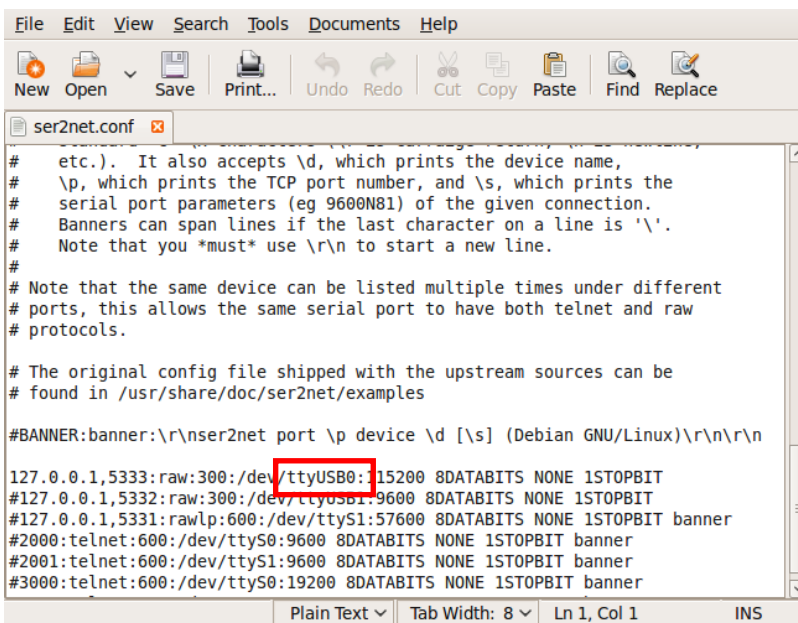
Look for an entry < ttyUSBx > where x is a number. Now unplug the Magic Mirror sensor Hub or Arduino and type < `ls /dev/ttyUSB*` > again. The < ttyUSBx > that is now gone is the USB address you want. If it's < ttyUSB0 >, then proceed to the next step. If not ttyUSB0, then you'll need to make an edit to the /etc/ser2net.conf file.



If not ttyUSB0, type the following command from a Terminal window:

`sudo gedit /etc/ser2net.conf`

Replace ttyUSB0 with the USB address of your device and < Save >.



5a Skip this step if you purchased an assembled Magic Mirror Sensor Hub and go directly to Step 6.

Download the Arduino IDE from <http://arduino.cc> and then upload the file DIY Magic Mirror/mirror/Firmata2/StandardFirmata.pde to the Sensor Hub. The PC installation manual has detailed

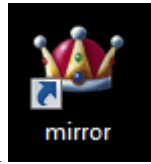
instructions on how to upload the firmware. You must use this version of Firmata, do not use the Firmata that comes with the Arduino IDE.



6 From the desktop, launch configure and ensure the following settings:

- < Verbose/Debug Mode > is **ON**
- < Arduino/Sensor Hub Port > is set to **5333**
- **IMPORTANT:** Only sensors that are wired up and connected are set to **ON** which would be < Character Select Potentiometer > with the Magic Mirror Sensor Hub. All other switches/sensors that are not yet hooked up must be left **OFF** until they are hooked up or you'll overload your computer with false sensor readings and potentially crash the software.

7 A one time reboot is necessary < REBOOT >

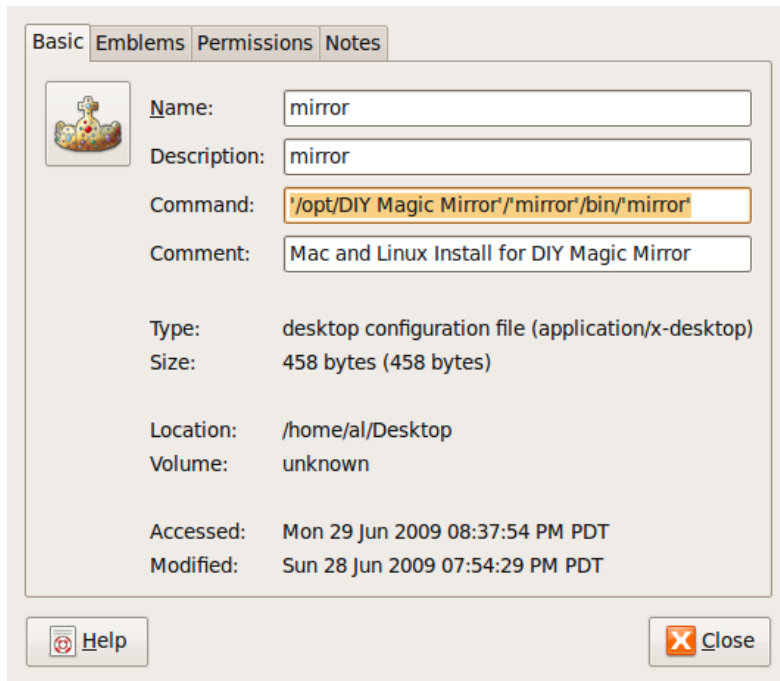


8 From the desktop, launch the Magic Mirror program. If you see < Arduino Found on Port: 5333 > and one of the characters playing, then your Magic Mirror software is installed correctly. Refer to the DIY Magic Mirror Operations Manual for instructions on how to wire up the sensors and configure the Magic Mirror.

9 If desired, you may also set the Magic Mirror program to start-up automatically. Right click on the Magic



Mirror icon and copy the command line in the < Command > box.



From the top Ubuntu Linux menu bar, choose < System >, < Preferences >, and then < Startup Applications >. Paste in the command line to the < Command > box and click < +Add >. The Magic Mirror will now start automatically upon start-up.



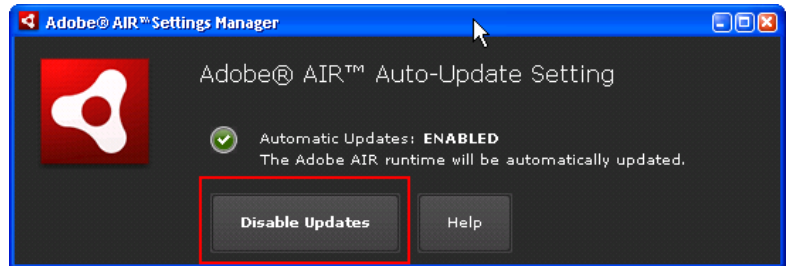
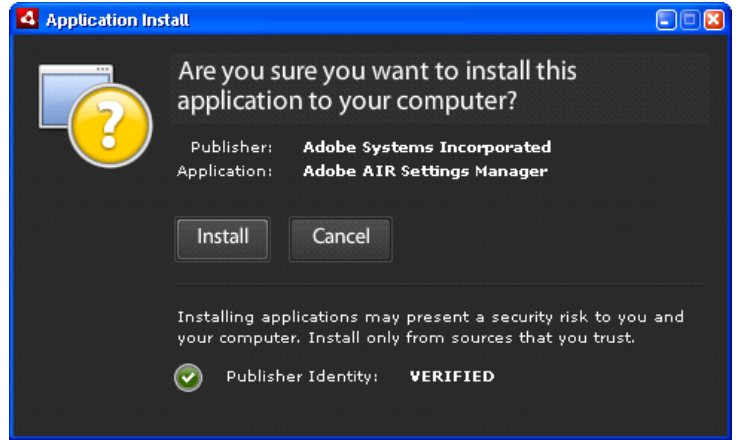
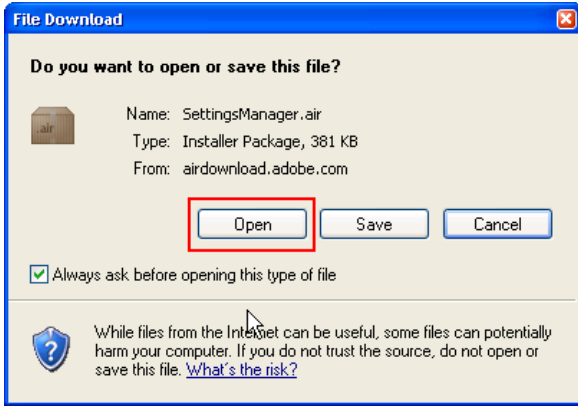
10 If desired, you may also minimize the Linux menu bar panes so the DIY Magic Mirror takes up the full screen. Right click on the menu bar and check < Autohide >. Do this for both the top and bottom menu panes.



The video may be sluggish if you are not using an optimized video driver on Linux. If this is the case, be sure and install an optimized driver for your video card.

11 Adobe AIR will periodically prompt for automatic updates. To disable Adobe AIR automatic updates, run this application <http://airdownload.adobe.com/air/applications/SettingsManager/SettingsManager.air> and then select “Disable Updates”.

If you do not do this, you’ll get an annoying Adobe AIR upgrade prompt every so often which will be a problem if you are running in a kiosk mode (no keyboard/mouse).



As reference, the following directories and files are installed for the Magic Mirror. These programs and files are also registered and can be removed with the Synaptics Package Manager.

