

Install ROS Noetic Ninjemys on Ubuntu OS 20.04 LTS

شرح الخطوات بالعربي*

اول خطوة قم بزيارة الرابط في الأسفل واتبع الخطوات الموضحة في الصور ادناه
<https://www.ros.org/>

The screenshot shows the ROS.org website. At the top, there's a navigation bar with links: About, Why ROS?, Getting Started, Get Involved, and Blog. The main banner features a photo of a child with a robot and the text 'ROS in Education'. Below this, there are two download buttons: 'Download' for ROS Foxy Fitzroy and 'Download' for ROS Noetic Ninjemys. A red arrow points to the 'Download' button for ROS Noetic Ninjemys. To the right of the download buttons, there are links to Wiki, ROS Answers, Blog, and Forums. At the bottom, there's a footer with 'Press Kit', 'Contact Us', and a Creative Commons license notice.

ROS

About Why ROS? Getting Started Get Involved Blog

ROS in Education

ROS is used by students of all ages, from kids interacting with robots in museum exhibits to graduate students learning about the latest solutions to common robotics problems. Because it supports such a wide variety of robots, including low cost platforms like the TurtleBot and LEGO Mindstorms, ROS is especially well-suited to classroom use.

Read More

ROS Foxy Fitzroy

Foxy Fitzroy is the latest ROS 2 LTS release. It's supported on Ubuntu Focal, macOS and Windows 10. Get Foxy Fitzroy now!

Download

ROS Noetic Ninjemys

ROS Noetic Ninjemys is latest ROS 1 LTS Release targeted at the Ubuntu 20.04 (Focal) release, though other systems are supported to varying degrees.

Download

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Find tutorials and learn more

ROS Answers
Ask questions. Get answers.

Blog
Get the latest news

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Hear the latest discussions

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8+

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ROS.org

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noetic \ Installation

ROS Noetic installation instructions

These instructions will install **ROS Noetic Ninjemys**, which is available for Ubuntu Focal (20.04), Debian Buster (10), and [other platform options](#).

To install our previous long-term support release, **ROS Melodic Morenia**, please see the [ROS Melodic installation instructions](#).

Select Your Platform

Supported:

- Ubuntu Focal amd64 armhf arm64
- Debian Buster amd64 arm64**

Source Installation

Experimental:

- Windows 10 amd64
- Arch Linux Any amd64 i686 arm armv6h armv7h aarch64

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Brought to you by: [Open Source Robotics Foundation](#)

“ctrl+alt+t” الان افتح لوحة الأوامر في نظام اوبنتو بالضغط على

Terminal window showing the command prompt:

```
mallikarjun@mallikarjun:~$
```

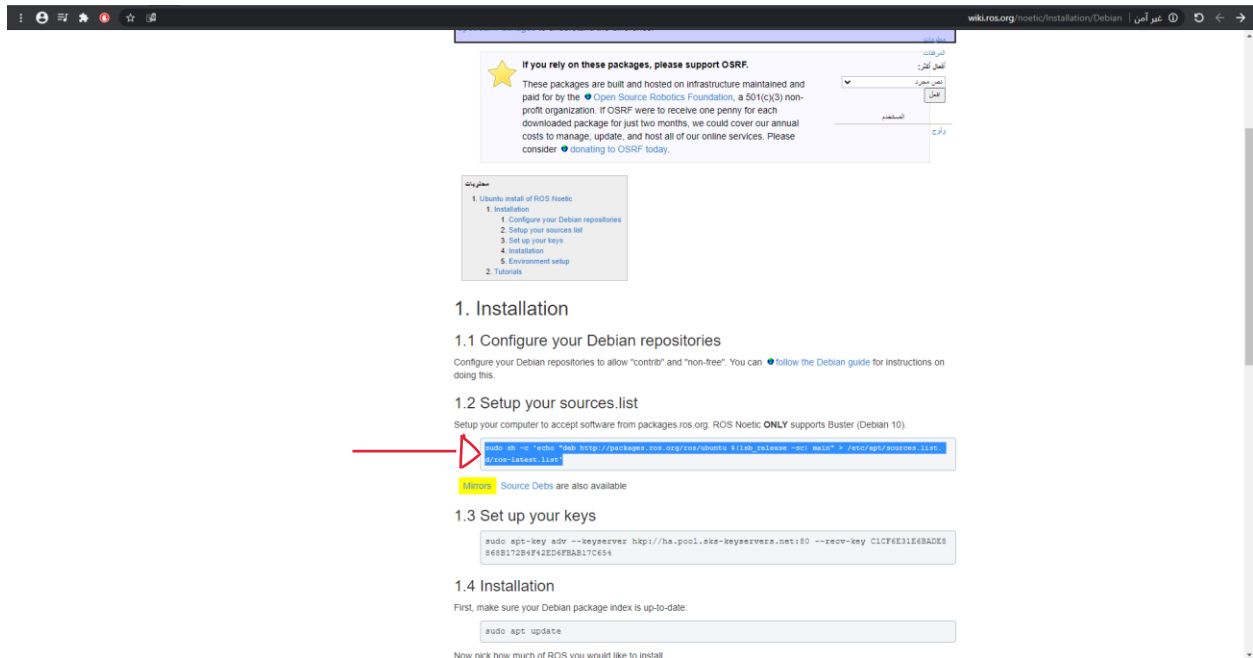
The terminal window is open over a web browser displaying the ROS Noetic installation instructions. The browser window shows the "1.4 Installation" section, which includes the command:

```
sudo apt update
```

The terminal window is currently empty, ready for the user to enter the command.

“enter” بعدها انسخ النصوص المحدد عليها في الصور الى لوحة الاوامر بالترتيب واضغط

-1



If you rely on these packages, please support OSRF.

These packages are built and hosted on infrastructure maintained and paid for by the [Open Source Robotics Foundation](#), a 501(c)(3) non-profit organization. If OSRF were to receive one penny for each downloaded package for just two months, we could cover our annual costs to manage, update, and host all of our online services. Please consider [donating to OSRF today](#).

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1. Ubuntu install of ROS Noetic
1. Installation
1. Configure your Debian repositories
2. Setup your sources.list
3. Set up your keys
4. Installation
5. Environment setup
2. Tutorials

1. Installation

1.1 Configure your Debian repositories

Configure your Debian repositories to allow "contrib" and "non-free". You can [follow the Debian guide](#) for instructions on doing this.

1.2 Setup your sources.list

Setup your computer to accept software from packages.ros.org. ROS Noetic **ONLY** supports Buster (Debian 10).

```
sudo sh -c "echo 'deb http://packages.ros.org/ros/ubuntu $(lsb_release -sc) main' > /etc/apt/sources.list.d/ros-latest.list"
```

[Warning](#) Source Debs are also available

1.3 Set up your keys

```
sudo apt-key adv --keyserver hkp://ha.pool.sks-keyservers.net:80 --recv-key C1CF6E31E6BADE8868B172B9F4244D4F8A17C654
```

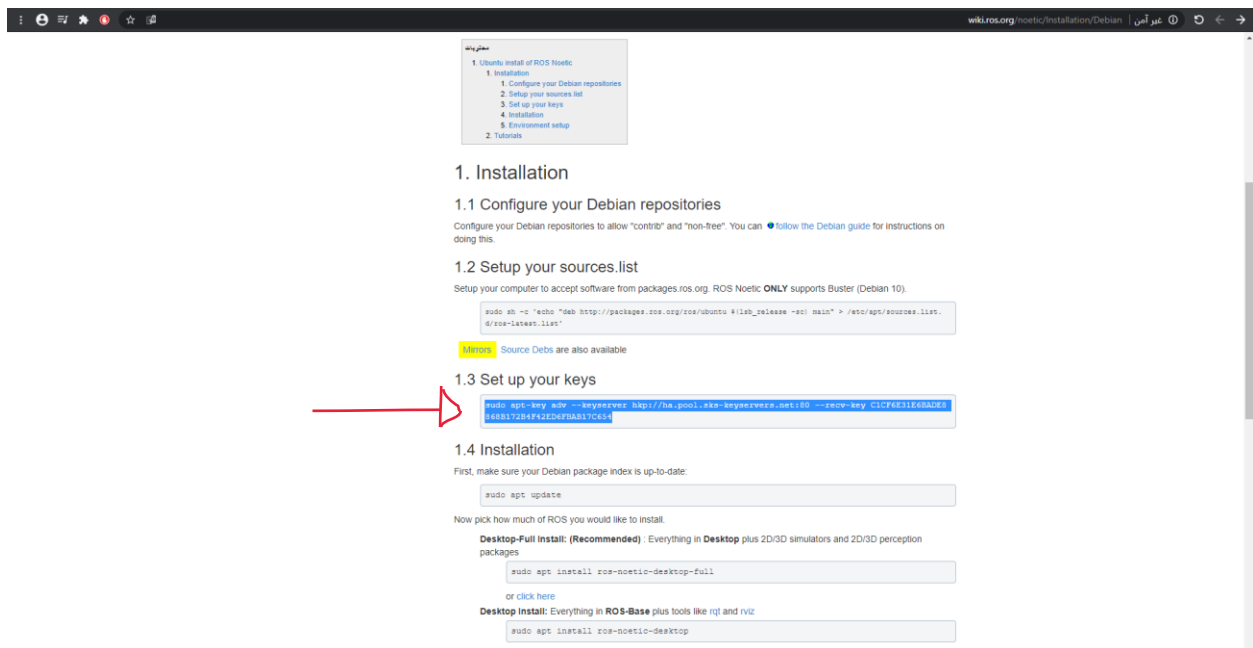
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First, make sure your Debian package index is up-to-date:

```
sudo apt update
```

Now pick how much of ROS you would like to install.

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Now pick how much of ROS you would like to install.

Desktop-Full Install: (Recommended) Everything in **Desktop** plus 2D/3D simulators and 2D/3D perception packages

```
sudo apt install ros-noetic-desktop-full
```

or [click here](#)

Desktop install: Everything in **ROS-Base** plus tools like `rqt` and `rviz`

```
sudo apt install ros-noetic-desktop
```

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```
sudo apt install ros-noetic-desktop
```

or [click here](#)

ROS-Base: (Bare Bones) ROS packaging, build, and communication libraries. No GUI tools.

```
sudo apt install ros-noetic-ros-base
```

or [click here](#)

There are even more packages available in ROS. You can always install a specific package directly.

```
sudo apt install ros-noetic-PACKAGE
```

e.g.

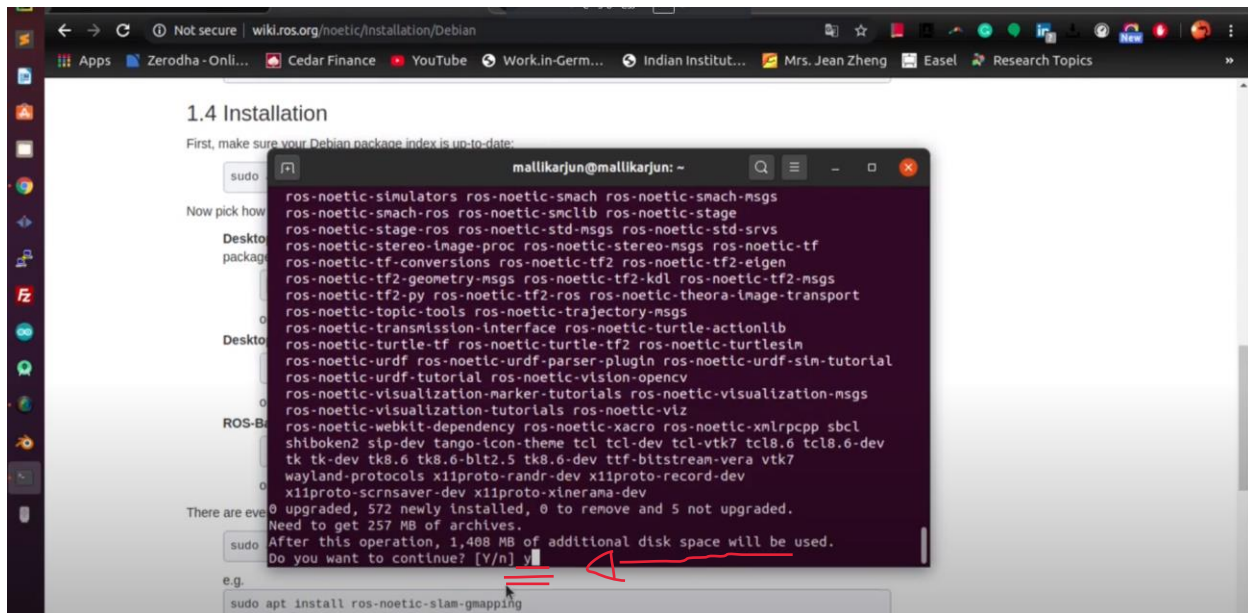
```
sudo apt install ros-noetic-slam-mapping
```

4.2

بيطلب منك الاستمرار اكتب الحرف

"y"

ثم "enter"



5-

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```

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e.g.

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sudo apt install ros-noetic-slam-mapping
```

To find available packages, see [ROS Index](#) or use:

```
apt search ros-noetic
```


1.5 Environment setup

You must source this script in every **bash** terminal you use ROS in.

```
source /opt/ros/noetic/setup.bash
```

It can be convenient to automatically source this script every time a new shell is launched. These commands will do that for you.

Bash

 If you have more than one ROS distribution installed, `~/bashrc` must only source the `setup.bash` for the version you are currently using

```
echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc
source ~/.bashrc
```

zsh

6.1-

The screenshot shows the ROS Noetic installation page. A red arrow points to the command `echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc` in the Bash section. The page includes instructions for installing ROS packages and setting up the environment.

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source ~/.bashrc
```

zsh

```
echo "source /opt/ros/noetic/setup.zsh" >> ~/.zshrc
source ~/.zshrc
```

2. Tutorials

Now, to test your installation, please proceed to the [ROS Tutorials](#).

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6.2-

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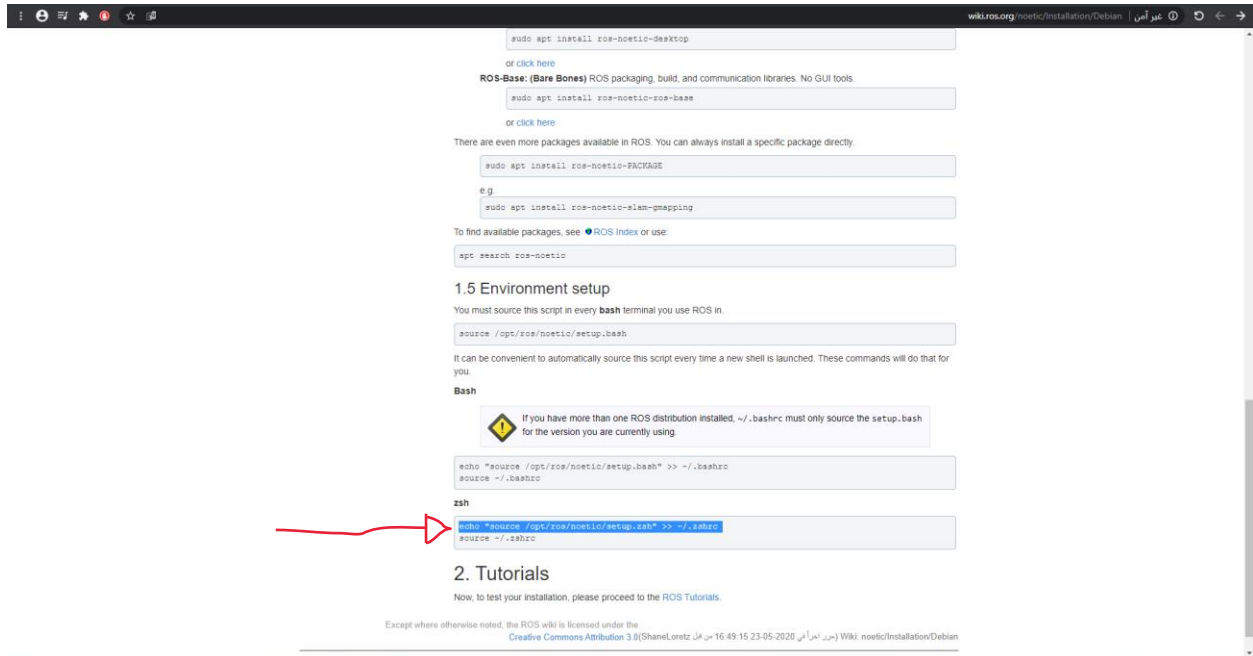
```
echo "source /opt/ros/noetic/setup.zsh" >> ~/.zshrc
source ~/.zshrc
```

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7.1-



The screenshot shows the ROS Noetic installation page. A red arrow points to the terminal command for zsh: `echo "source /opt/ros/noetic/setup.sh" >> ~/.zshrc`. The page content includes instructions for installing ROS-Base, ROS-Desktop, and specific packages like ROS-Nav2. It also mentions the ROS Index and the ROS Tutorials.

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sudo apt install ros-noetic-desktop
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or click here

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There are even more packages available in ROS. You can always install a specific package directly.

```
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e.g.

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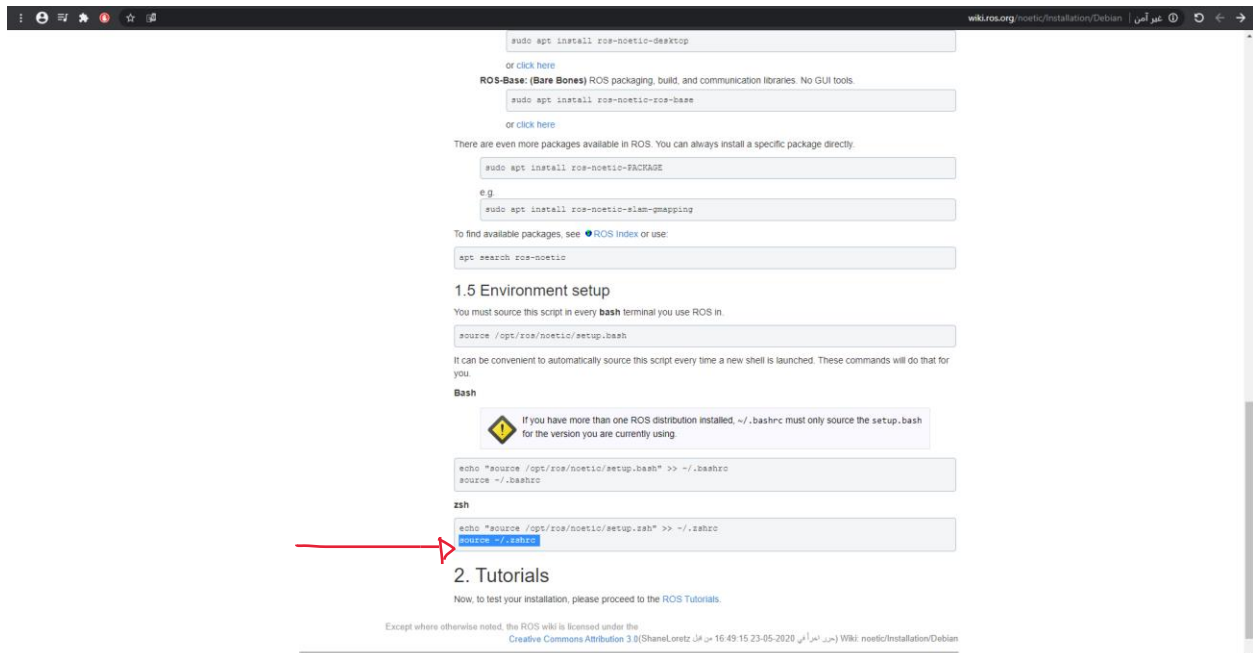
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الآن تم التنصيب وللتأكد اكتب الامر التالي

rosversion -d

الكلمة المحددة في الصورة ادناه هي اسم نسخة اصدار البرنامج

```
1.5 Environment setup
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source /opt/ros/noetic/setup.bash

It can be convenient to add this to your .bashrc file.
Bash
echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc
source ~/.bashrc

zsh
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source ~/.zshrc

2. Tutorial
Now, to test your installation, run the following command in a terminal window:
rosversion -d
noetic
```

انتهى