













```
10503-102811-0800 [31.4 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-rosparam
0201103-022214+0800 [17.2 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-rosunit
201017-190712+0800 [46.2 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-roslaunch
-20210503-103036-0800 [131 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-rostest
0210503-111053-0800 [29.4 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-roslz4 a
201103-021342+0800 [15.8 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-rosbag-s
enial-20201103-022141+0800 [103 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-std-srvs
0210503-100149-0800 [18.6 kB]
os.org/ros/ubuntu xenial/main amd64 ros-kinetic-topic-to
tal-20210503-111409-0800 [159 kB]
ve.ubuntu.com/ubuntu xenial/universe amd64 freeglut3 amd64
ve.ubuntu.com/ubuntu xenial/universe amd64 libflann1.8 amd
.ros.org/ros/ubuntu xenial/main amd64 ros-kinetic-rosbag a
0210503-111808-0800 [296 kB]
7 B/630 kB 1% [77 ros-kinetic-rosbag 29.5 kB/296 kB 10%]
```

```
Mozilla Firefox
s-m.com.sa/ros.txt
Firefox Privacy Notice
https://s-m.com.sa/ros.txt

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

sudo apt-key adv --keyserver 'hkp://keyserver.ubuntu.com:80' --recv-key
C1CF6E31E6BADE8868B172B4F42ED6FBA817C654

sudo apt-get update

sudo apt-get install ros-kinetic-desktop-full

apt-cache search ros-kinetic

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

sudo apt install python-rosdep python-rosinstall python-rosinstall-generator python-wstool
build-essential

sudo apt install python-rosdep

sudo rosdep init

rosdep update

sudo apt-get install ros-noetic-catkin

mkdir -p ~/catkin_ws/src

cd ~/catkin_ws/

catkin_make

cd ~/catkin_ws/src

git clone https://github.com/smart-methods/arduino_robot_arm.git

cd ~/catkin_ws

rosdep install --from-paths src --ignore-src -r -y

sudo apt-get install ros-kinetic-moveit

sudo apt-get install ros-kinetic-joint-state-publisher ros-kinetic-joint-state-publisher-
gui

sudo apt-get install ros-kinetic-gazebo-ros-control joint-state-publisher

sudo apt-get install ros-kinetic-ros-controllers ros-kinetic-ros-control

sudo nano ~/.bashrc
```