

Make sure all these commands are installed :

```
mkdir -p ~/catkin_ws/src
```

```
cd ~/catkin_ws/
```

```
catkin_make
```

```
cd ~/catkin_ws/src
```

install source code

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

We complete the rest of the installation commands ..

```
cd ~/catkin_ws
```

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

For melodic

```
sudo apt-get install ros-melodic-moveit
```

```
sudo apt-get install ros-melodic-joint-state-publisher ros-melodic-joint-state-publisher-gui
```

```
sudo apt-get install ros-melodic-gazebo-ros-control joint-state-publisher
```

```
sudo apt-get install ros-melodic-ros-controllers ros-melodic-ros-control
```

```
sudo nano ~/.bashrc
```

at the end of the (bashrc) file add the following line

```
source /home/nuha/catkin_ws/devel/setup.bash
```

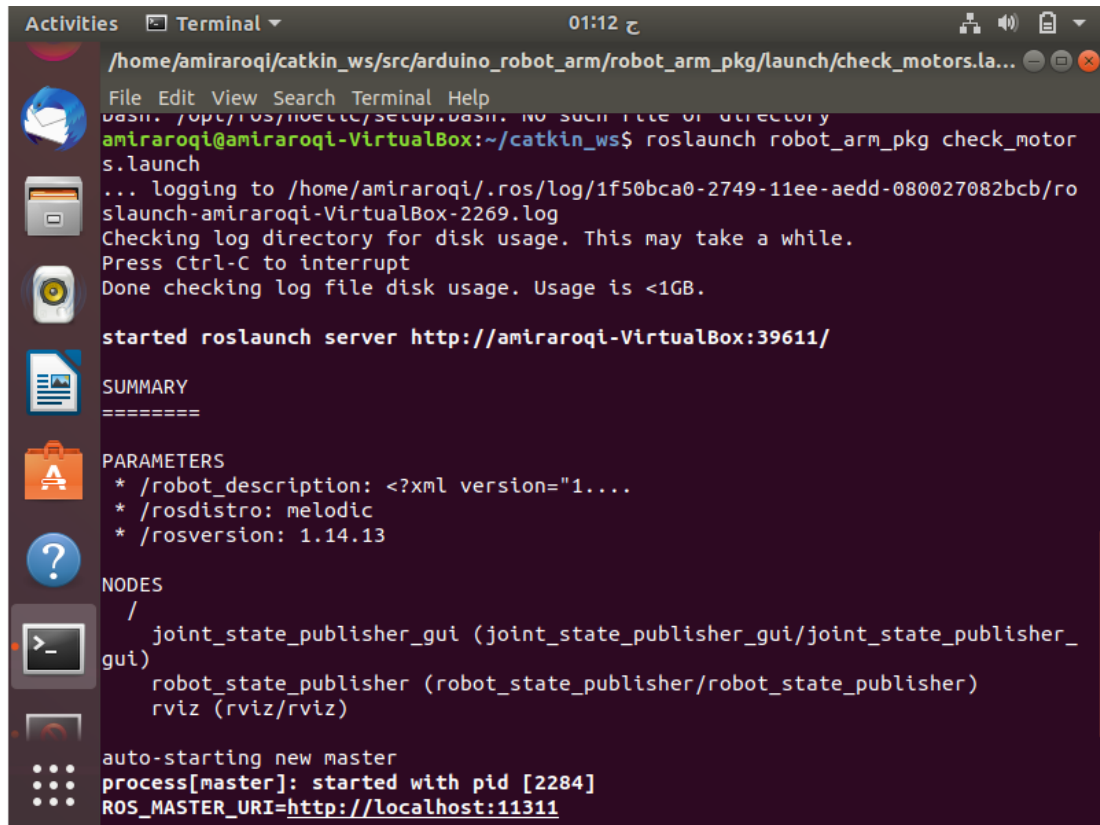
Then (ctrl+o)then enter then (ctrl+x)

```
source ~/.bashrc
```

open the robot arm using the command :

```
roslaunch robot_arm_pkg check_motors.launch
```

testing



A terminal window titled 'Terminal' showing the execution of a ROS launch file. The user is in the directory `/home/amiraroqi/catkin_ws/src/arduino_robot_arm/robot_arm_pkg/launch/`. The command `roslaunch robot_arm_pkg check_motors.launch` is executed. The output shows the process logging to a file, checking disk usage, and starting a ROS master. The summary and parameters are displayed, followed by the nodes being loaded: `joint_state_publisher_gui`, `robot_state_publisher`, and `rviz`. The master is started with PID 2284 and the ROS_MASTER_URI is set to `http://localhost:11311`.

```
/home/amiraroqi/catkin_ws/src/arduino_robot_arm/robot_arm_pkg/launch/check_motors.la...
File Edit View Search Terminal Help
basin: /opt/ros/melodic/setup.bash: no such file or directory
amiraroqi@amiraroqi-VirtualBox:~/catkin_ws$ roslaunch robot_arm_pkg check_motor
s.launch
... logging to /home/amiraroqi/.ros/log/1f50bca0-2749-11ee-aedd-080027082bcb/ro
slaunch-amiraroqi-VirtualBox-2269.log
Checking log directory for disk usage. This may take a while.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

started roslaunch server http://amiraroqi-VirtualBox:39611/

SUMMARY
=====

PARAMETERS
* /robot_description: <?xml version="1....
* /roscpp: melodic
* /rosversion: 1.14.13

NODES
/
  joint_state_publisher_gui (joint_state_publisher_gui/joint_state_publisher_
gui)
  robot_state_publisher (robot_state_publisher/robot_state_publisher)
  rviz (rviz/rviz)

auto-starting new master
process[master]: started with pid [2284]
ROS_MASTER_URI=http://localhost:11311
```

