

Steps to Install the package arduino_robot_arm

These packages were tested under ROS kinetic and Ubuntu 18.04 and it works perfectly on ROS melodic.

If you don't have an Arduino, let's download it by following these steps

STEP1: Copy these 4 commands in the Terminal:

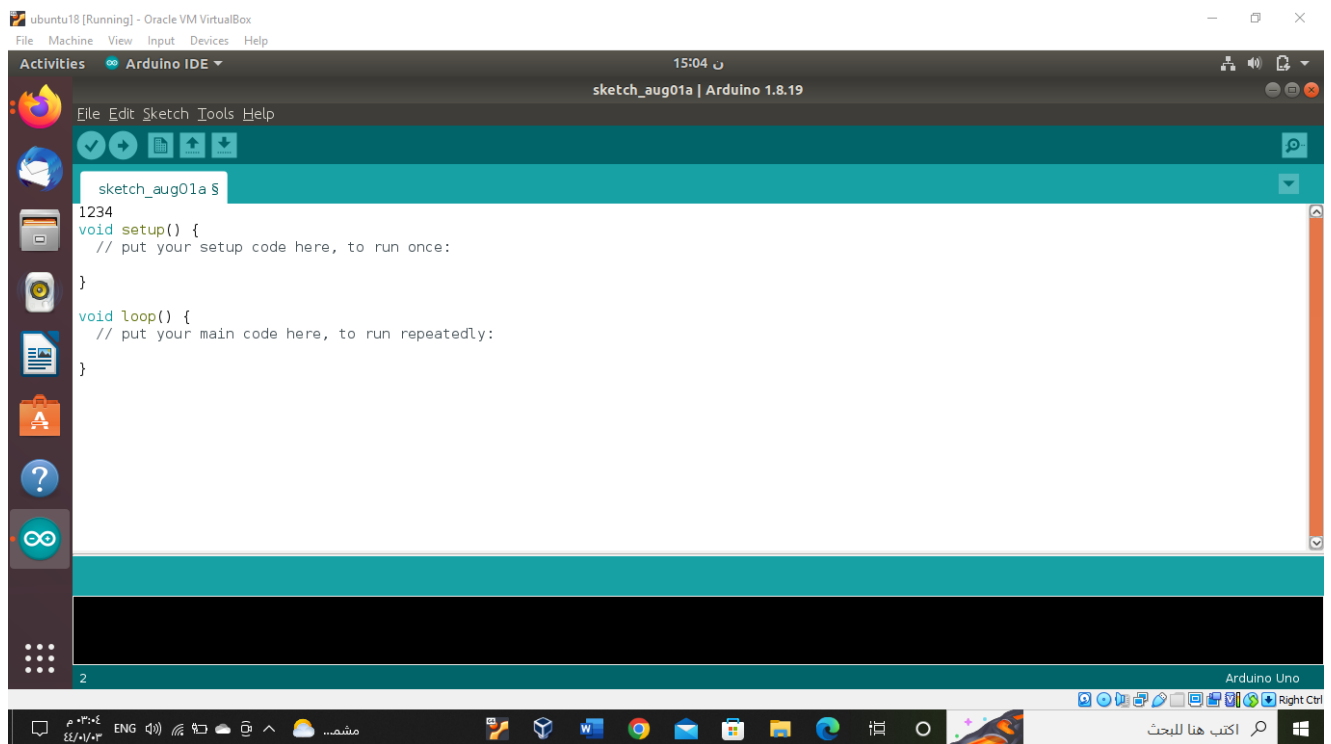
STEP1.1: `sudo apt install snapd`

STEP1.2: `sudo snap install arduino`

STEP1.3: `sudo usermod -a -G dialout $USER`

STEP1.4: `sudo snap connect arduino:raw-usb`

That's it! This is the interface of Arduino:



Create catkin workspace

STEP1.1: Copy these 6 commands in the Terminal:

STEP1.2: Add the “arduino_robot_arm” package to “src” folder

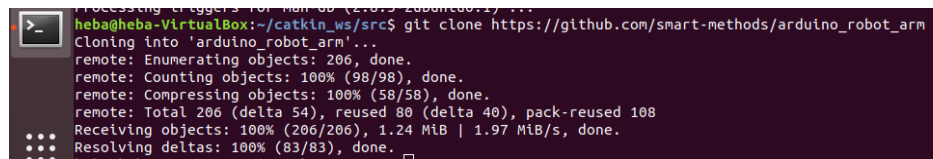
STEP1.3: `mkdir -p ~/catkin_ws/src`

STEP1.4: `cd ~/catkin_ws/src`

STEP1.5: `sudo apt install git`

STEP1.6: `git clone https://github.com/smart-methods/arduino_robot_arm`

The output will be like this



```
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
heba@heba-VirtualBox:~/catkin_ws/src$ git clone https://github.com/smart-methods/arduino_robot_arm
Cloning into 'arduino_robot_arm'...
remote: Enumerating objects: 206, done.
remote: Counting objects: 100% (98/98), done.
remote: Compressing objects: 100% (58/58), done.
remote: Total 206 (delta 54), reused 80 (delta 40), pack-reused 108
Receiving objects: 100% (206/206), 1.24 MiB | 1.97 MiB/s, done.
Resolving deltas: 100% (83/83), done.
```

Install all the dependencies

STEP2: Copy these 7 commands in the Terminal:

STEP2.1: `cd ~/catkin_ws/`

STEP2.2: `rosdep install --from-paths src --ignore-src -r -y`

#All required rosdeps installed successfully

STEP2.3: `sudo apt-get install ros-melodic-moveit`

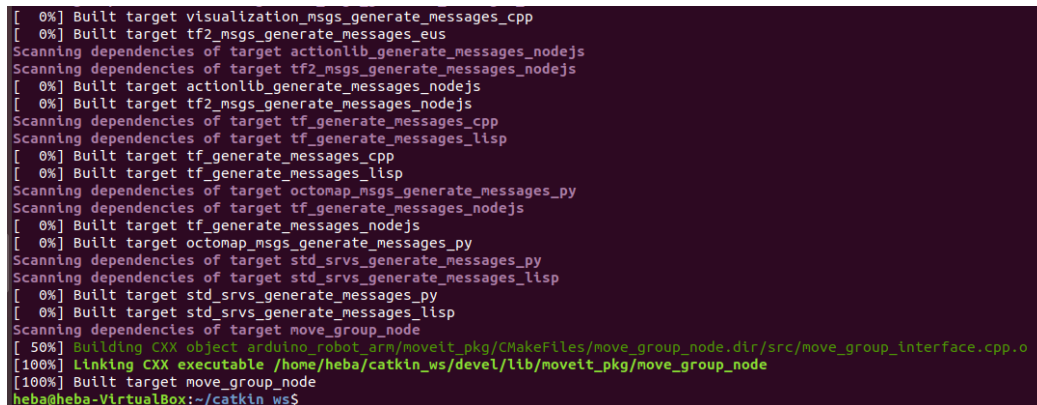
STEP2.4: `sudo apt-get install ros-melodic-joint-state-publisher ros-melodic-joint-state-publisher-gui`

STEP2.5: `sudo apt-get install ros-melodic-gazebo-ros-control joint-state-publisher`

STEP2.6: `sudo apt-get install ros-melodic-ros-controllers ros-melodic-ros-control`

STEP2.7: `catkin_make`

The output will be like this



```
[ 0%] Built target visualization_msgs_generate_messages_cpp
[ 0%] Built target tf2_msgs_generate_messages_eus
Scanning dependencies of target actionlib_generate_messages_nodejs
[ 0%] Built target actionlib_generate_messages_nodejs
Scanning dependencies of target tf2_msgs_generate_messages_nodejs
[ 0%] Built target tf2_msgs_generate_messages_nodejs
Scanning dependencies of target tf_generate_messages_cpp
[ 0%] Built target tf_generate_messages_cpp
Scanning dependencies of target tf_generate_messages_lisp
[ 0%] Built target tf_generate_messages_lisp
Scanning dependencies of target octomap_msgs_generate_messages_py
[ 0%] Built target octomap_msgs_generate_messages_py
Scanning dependencies of target tf_generate_messages_nodejs
[ 0%] Built target tf_generate_messages_nodejs
Scanning dependencies of target std_srvs_generate_messages_py
[ 0%] Built target std_srvs_generate_messages_py
Scanning dependencies of target std_srvs_generate_messages_lisp
[ 0%] Built target std_srvs_generate_messages_lisp
Scanning dependencies of target move_group_node
[ 50%] Building CXX object arduino_robot_arm/moveit_pkg/CMakeFiles/move_group_node.dir/src/move_group_interface.cpp.o
[100%] Linking CXX executable /home/heba/catkin_ws/devel/lib/moveit_pkg/move_group_node
[100%] Built target move_group_node
heba@heba-VirtualBox:~/catkin_ws$
```