Installing the Arduino Robot Arm Package on ROS (noetic) Step by Step

Step 1 - Creating a ROS Package

To create Workspace run the following command consecutively:

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

Step 2 - Add the Arduino Robot Arm Package to "src" Folder

In order to do this you have to run the commnds below in your terminal:

```
cd /catkin_ws/sre
sudo apt install git
git clone https://github.com/smart-methods/arduino robot arm
```

Step 3 - Install the Dependencies

run this instruction inside your workspace:

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

make sure you installed all these packages:

```
sudo apt-get install ros-noetic-moveit
sudo apt-get install ros-noetic-joint-state-publisher ros-noetic-joint-state-publisher-gui
sudo apt-get install ros-noetic-ros-controllers ros-noetic-ros-control
```

Step 4 - Configuring Arduino with ROS

First, Install Arduino IDE in Ubuntu from https://www.arduino.cc/en/software, then run the following command after unzipping the folder:

```
sudo ./install.sh
```

Second, Launch the Arduino IDE

Third, Installing Binaries on the ROS workstation

You can install rosserial for Arduino by running:

```
sudo apt-get install ros-noetic-rosserial-arduino
sudo apt-get install ros-noetic-rosserial
```

5-Install ros_lib into the Arduino Environment

```
cd <sketchbook>/libraries
```

```
rm -rf ros_lib
rosrun rosserial_arduino make_libraries.py .
```

Note:

is the directory where the Linux Arduino environment saves your sketches. Typically this is a directory called sketchbook or Arduino in your home directory. e.g cd ~/Arduino/libraries.

Finishing Up

After restarting your IDE, you should see ros_lib listed under examples: