



Ghuson Bajaber's

PROJECT





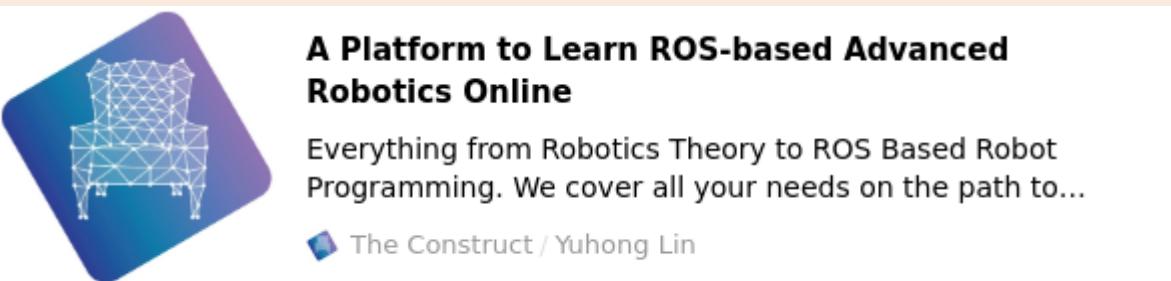
# ROBOT ARM

joy

simulate  
using (ROS )  
Robot Operating System

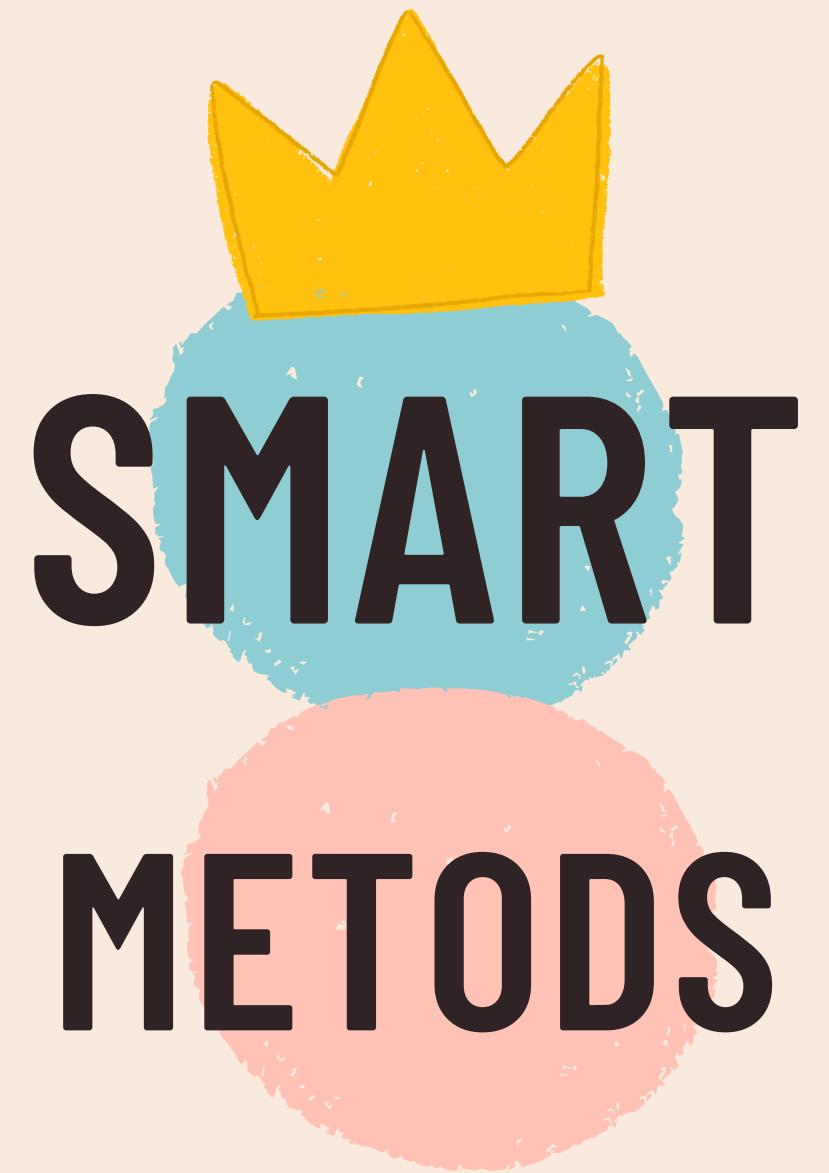
*to simulate robot arm by (ROS), FOLLOW steps below:*

create an account in ROS online website



Home - my Rosject - create New Rosject

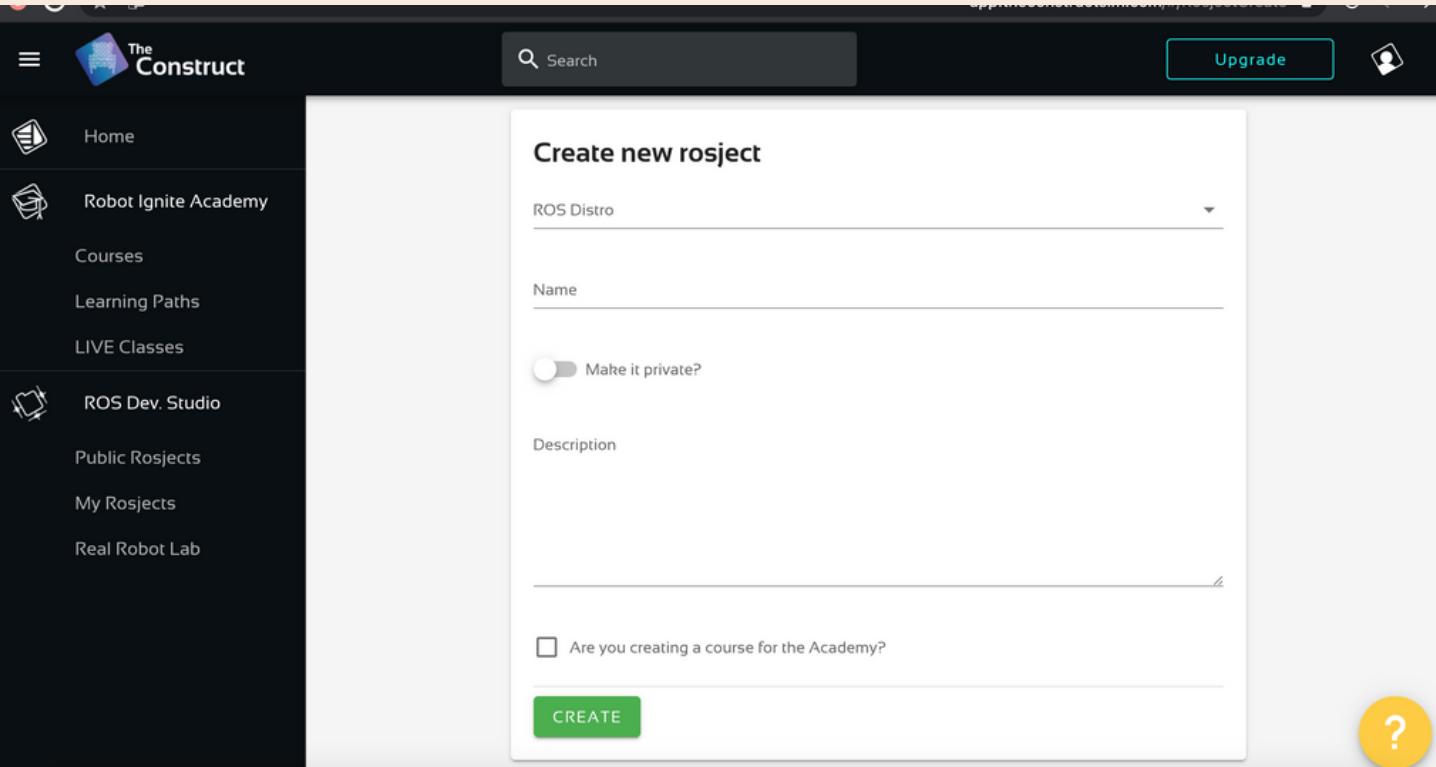
A screenshot of the 'My Rosjects' page on the The Construct website. The sidebar includes links for Home, Robot Ignite Academy, Courses, Learning Paths, LIVE Classes, ROS Dev. Studio, Public Rosjects, My Rosjects (which is selected), and Real Robot Lab. The main area shows a list of projects: 'Create a New Rosject' (button with a plus sign), 'ROSject' (with a circular icon showing a robot arm), 'robot arm' (by Gbajaber, with a plus sign button), and 'ROS Melodic' (6.49 MB). There are also 'Upgrade' and '?' buttons.



*The 2021 Summer training of  
implement and manufacture the  
robots made in (KSA)*

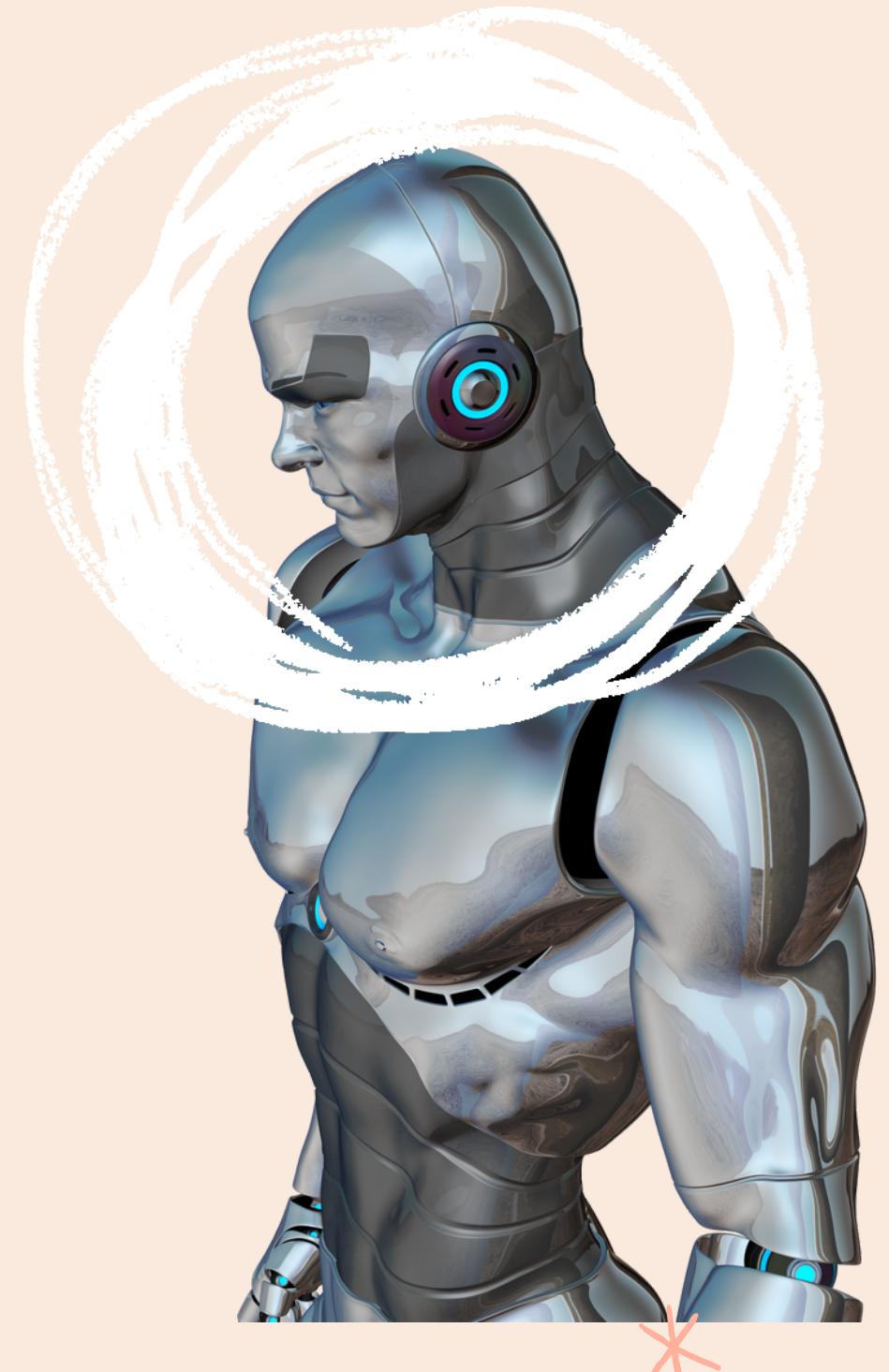
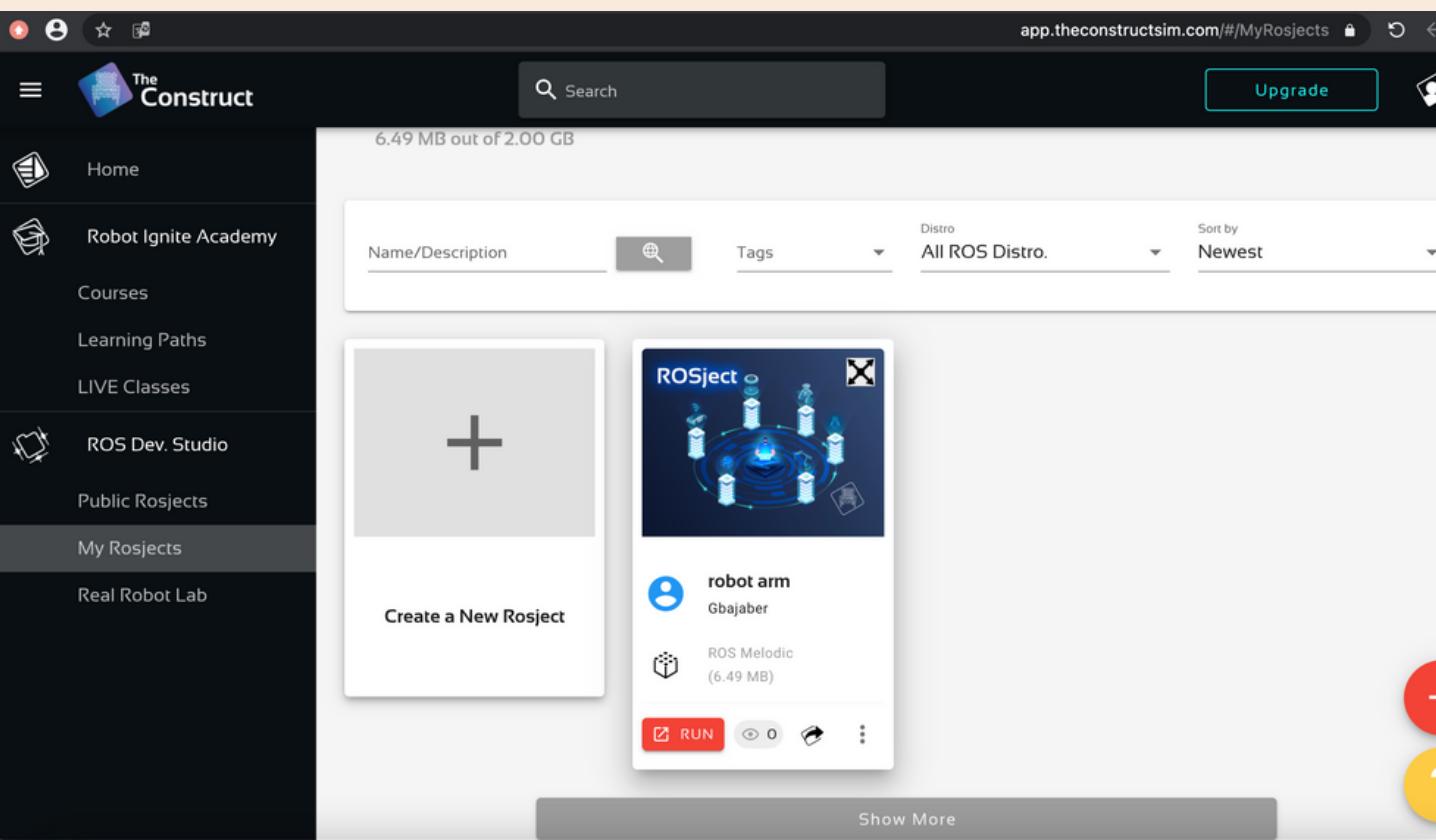
Fill in the required data

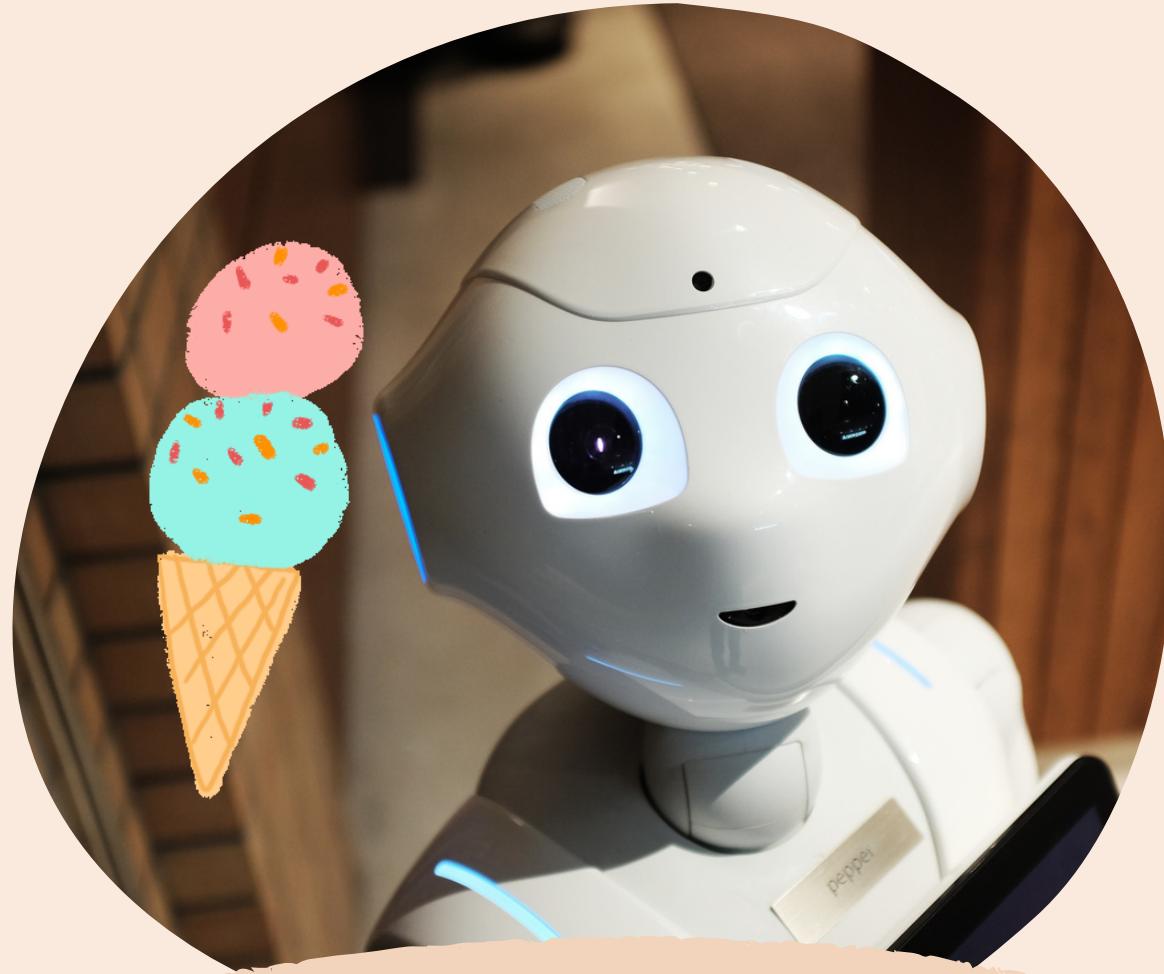
3



press run to start your work

4

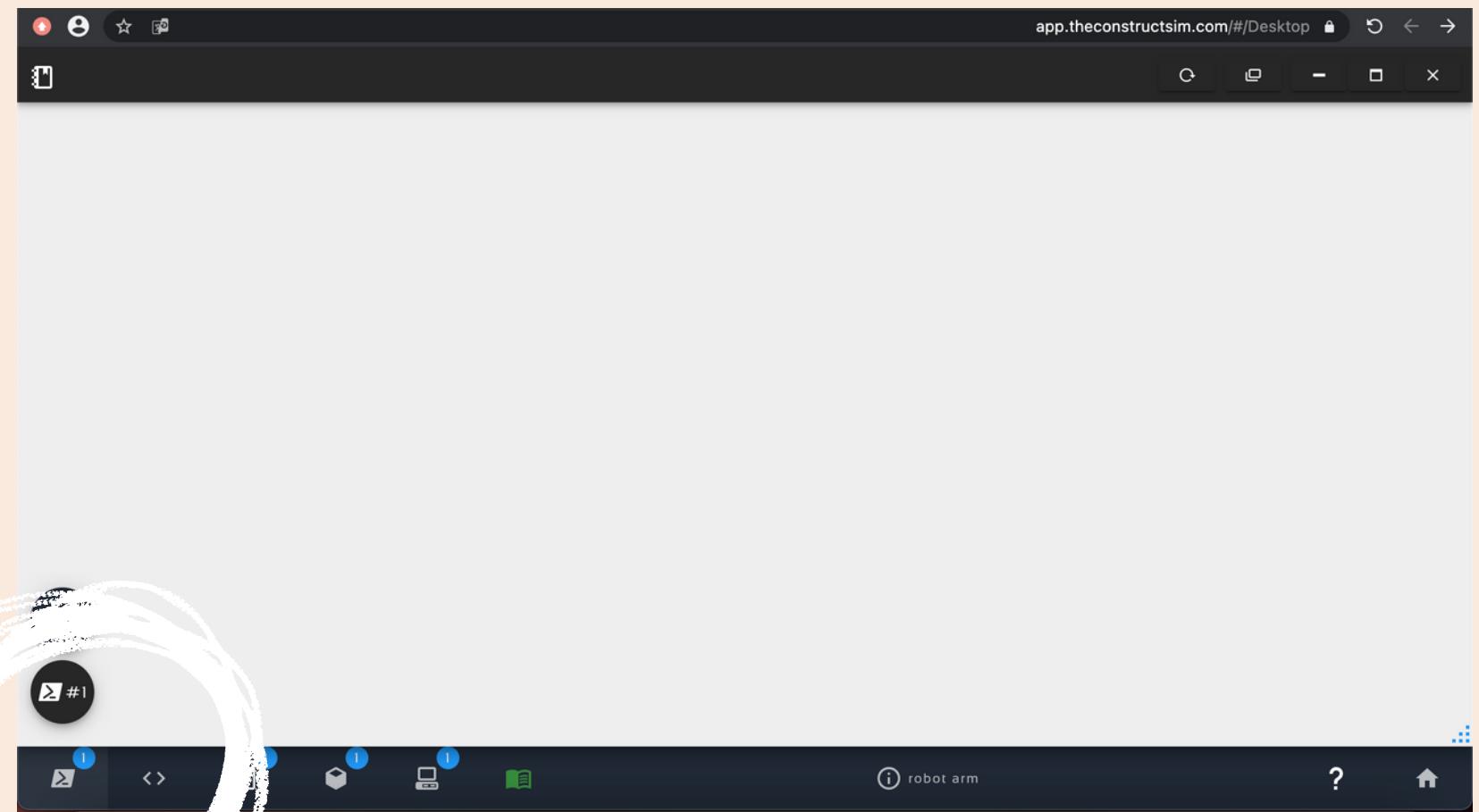




artificial intelligence

5

press on web shell



6

write the commands

LET'S  
GO!

# Installing the package arduino\_robot\_arm

- Add the “arduino\_robot\_arm” package to “src” folder

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

```
$ sudo apt install git
```

```
$ git clone https://github.com/smart-methods/arduino\_robot\_arm
```

- Install all the dependencies

```
$ cd ~/catkin_ws
```

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

```
$ 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
```

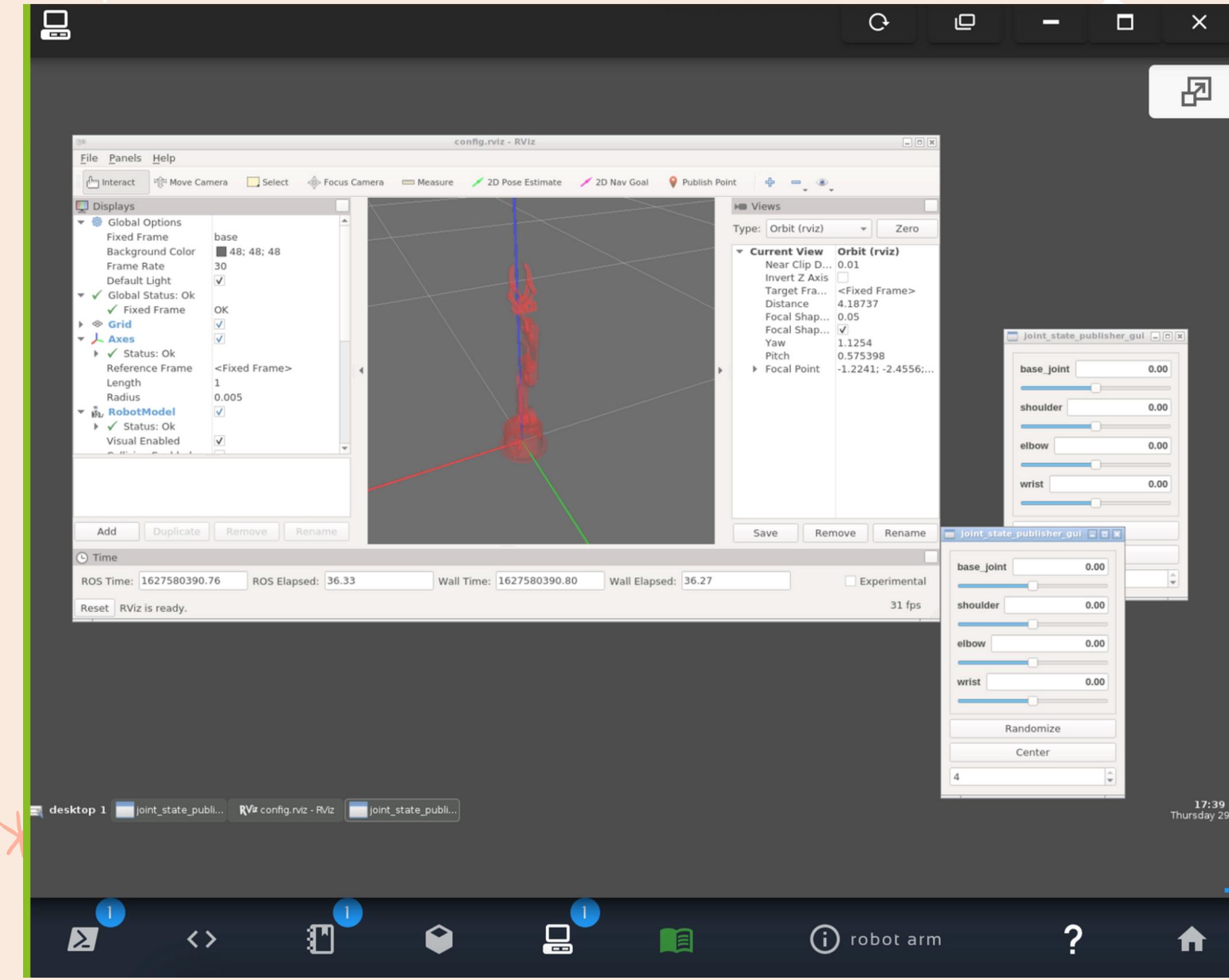
- Compile the package

```
$ catkin_make
```



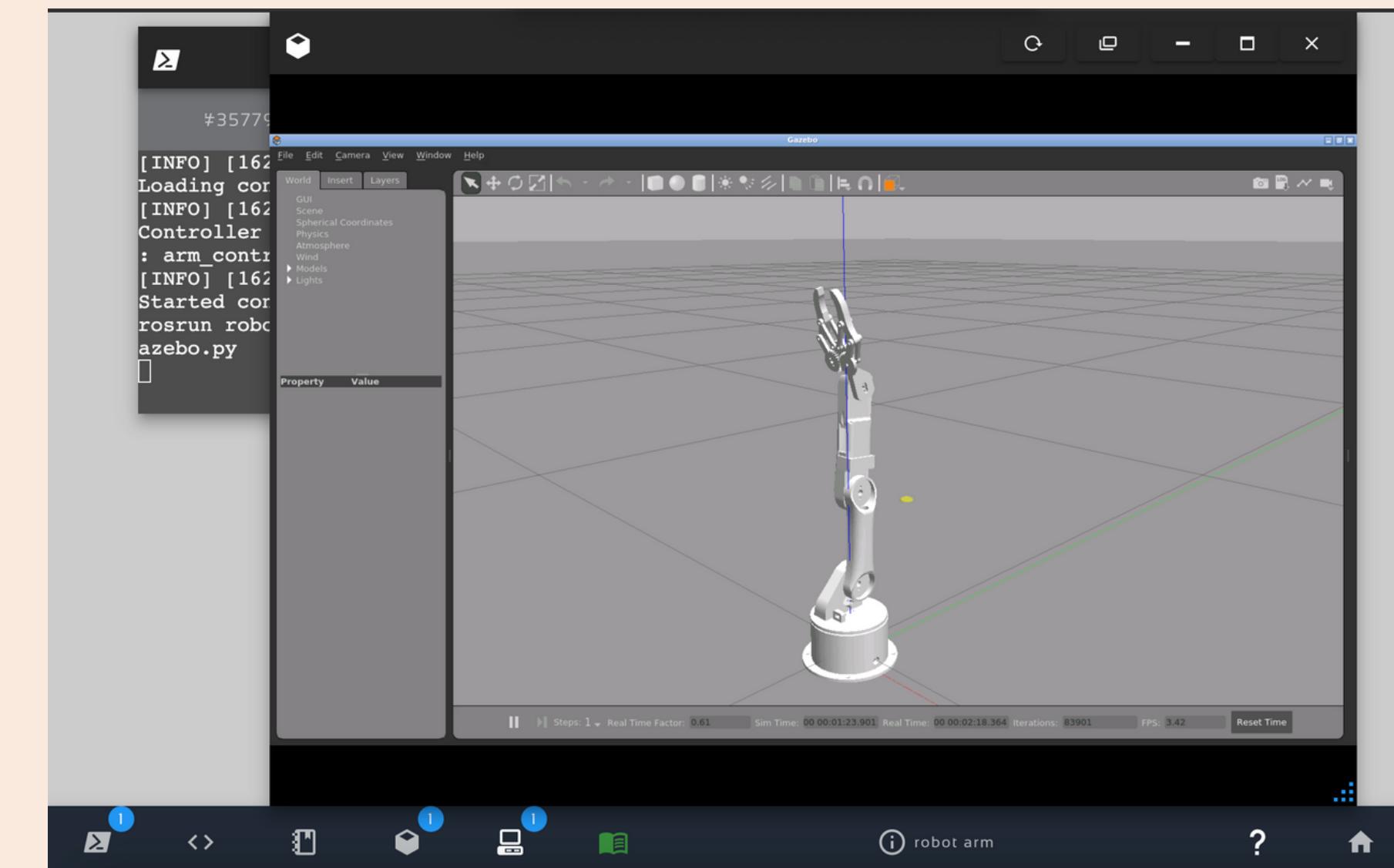
run the robot arm packge using this command (\$ roslaunch robot\_arm\_pkg check\_motors.launch ) the click on graphical tools

# cotrolling the motors



Controlling the  
motors in  
simulation

\$ rosrun robot\_arm\_pkg joint\_states\_to\_gazebo.py  
\$ roslaunch robot\_arm\_pkg check\_motors.launch  
\$ roslaunch robot\_arm\_pkg check\_motors\_gazebo.launch



*roslaunch moveit\_pkg demo.launch*

## MoveIt in Rviz

