

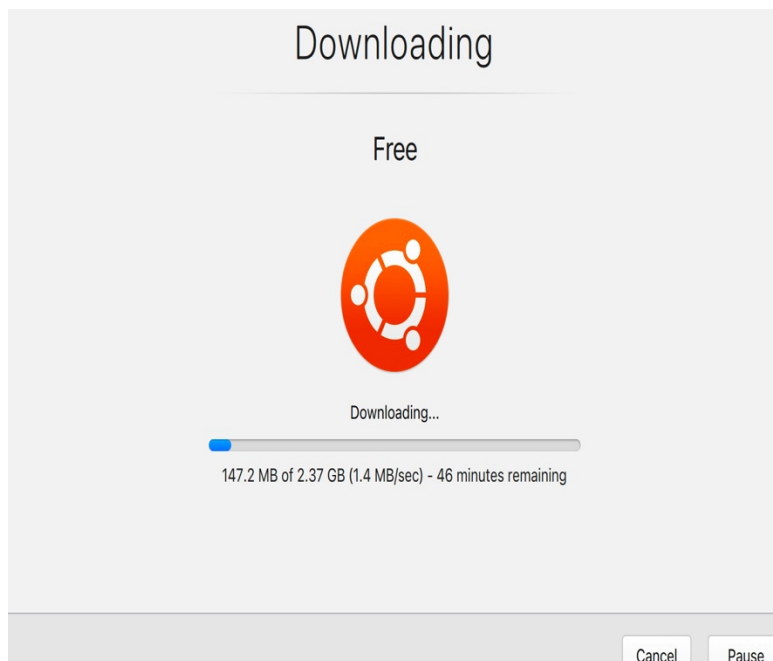
-Task2 Artificial intelligence (AI):

Step by step:

1. install parallel



2. and install ubuntu 20.04.2 ARM64



- 2

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Activities Terminal Jul 26 22:00
GitHub-jetsonhacks/ins s-m.com.sa/ros.txt Installation/UbuntuARM +

parallels@ubuntu-linux-20-04-desktop: ~/catkin_ws
Setting up libroscpp-serialization:arm64 (0.6.13-1build1) ...
Setting up libxmlrpcpp2d:arm64 (1.14.3+ds1-1ubuntu5) ...
Setting up python3-catkin (0.8.0-1ubuntu2) ...
Setting up libtf2-1d:arm64 (0.6.6-1build3) ...
Setting up libroscpp3:arm64 (1.13.11-3build4) ...
Setting up libroscpp2d:arm64 (1.14.3+ds1-1ubuntu5) ...
Setting up python3-roscpp-msgs (1.14.3+ds1-1ubuntu5) ...
Setting up python3-roscpp-msgs (1.11.2-10) ...
Setting up python3-geometry-msgs (1.12.7-2) ...
Setting up libroscpp-console-bridge:arm64 (0.5.3-1build1) ...
Setting up libactionlib:arm64 (1.12.0-4ubuntu1) ...
Setting up python3-roslib (1.14.7-3build2) ...
Setting up python3-rospy (1.14.3+ds1-1ubuntu5) ...
Setting up python3-sensor-msgs (1.12.7-2) ...
Setting up liburdf:arm64 (1.13.1-2build1) ...
Setting up joint-state-publisher (1.12.14-1) ...
Setting up libtf2-ros:arm64 (0.6.6-1build3) ...
Setting up libtf2:arm64 (1.12.0-6ubuntu3) ...
Setting up libkdl-parser:arm64 (1.13.1-2build1) ...
Setting up joint-state-publisher-gui (1.12.14-1) ...
Setting up libroscpp-state-publisher-solver:arm64 (1.14.0-3build1) ...
Setting up ros-robot-state-publisher (1.14.0-3build1) ...
cd ~
Processing triggers for libc-bin (2.31-0ubuntu9.7) ...
parallels@ubuntu-linux-20-04-desktop: ~/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

at the end of the (bashrc) file add the following line
(source ~/home/wesam/catkin_ws/devel/setup.bash)
then

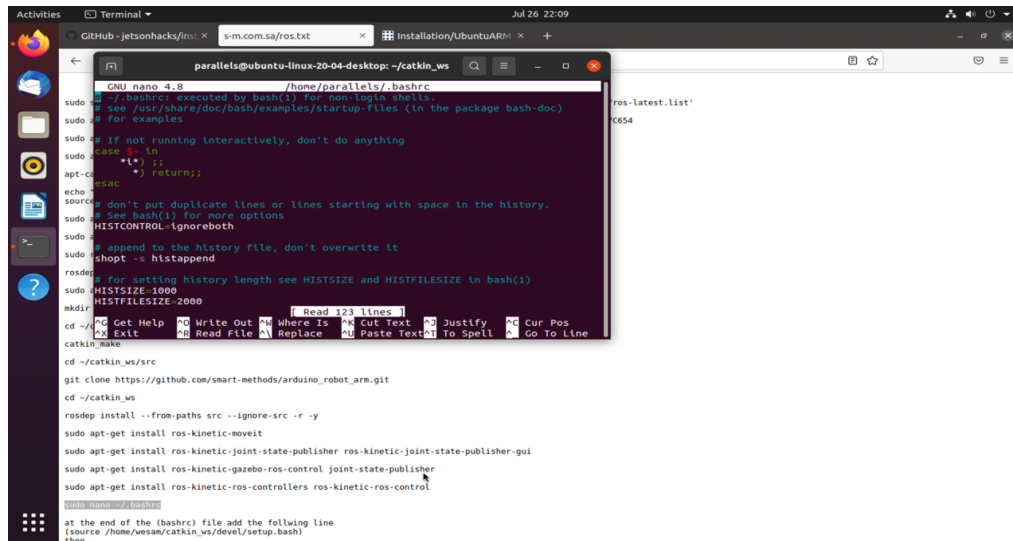
Activities Terminal Jul 26 22:01
GitHub-jetsonhacks/ins s-m.com.sa/ros.txt Installation/UbuntuARM +

parallels@ubuntu-linux-20-04-desktop: ~/catkin_ws
Unpacking ros-noetic-ros-control (0.19.5-1focal.20220107.015728) ...
Selecting previously unselected package ros-noetic-velocity-controllers.
Preparing to unpack .../8-ros-noetic-velocity-controllers_0.20.0-1focal.20220519.110319_arm64.deb ...
Unpacking ros-noetic-velocity-controllers (0.20.0-1focal.20220519.110319) ...
Selecting previously unselected package ros-noetic-ros-controllers.
Preparing to unpack .../9-ros-noetic-ros-controllers_0.20.0-1focal.20220519.110704_arm64.deb ...
Unpacking ros-noetic-ros-controllers (0.20.0-1focal.20220519.110704) ...
Setting up ros-noetic-force-torque-sensor-controller (0.20.0-1focal.20220512.125024) ...
Setting up ros-noetic-gripper-action-controller (0.20.0-1focal.20220519.110239) ...
Setting up ros-noetic-velocity-controllers (0.20.0-1focal.20220519.110319) ...
Setting up ros-noetic-combined-robot-hw (0.19.5-1focal.20220106.235948) ...
Setting up ros-noetic-ackermann-steering-controller (0.20.0-1focal.20220519.110018) ...
Setting up ros-noetic-joint-trajectory-controller (0.20.0-1focal.20220519.110250) ...
Setting up ros-noetic-lw-sensor-controller (0.20.0-1focal.20220512.125542) ...
Setting up ros-noetic-ros-controllers (0.20.0-1focal.20220519.110222) ...
Setting up ros-noetic-ros-control (0.19.5-1focal.20220107.015728) ...
Setting up ros-noetic-ros-controllers (0.20.0-1focal.20220519.110704) ...
cd ~
parallels@ubuntu-linux-20-04-desktop: ~/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

at the end of the (bashrc) file add the following line
(source ~/home/wesam/catkin_ws/devel/setup.bash)
then
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6. install arm package



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parallels@ubuntu-linux-20-04-desktop: ~/catkin_ws
GNU nano 4.8 /home/parallels/.bashrc
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# If not running interactively, don't do anything
if [ -z "$PS1" ]; then
    set -e
    return
fi

# don't put duplicate lines or lines starting with space in the history.
# See bash(1) for more options
HISTCONTROL=ignoreboth

# append to the history file, don't overwrite it
shopt -s histappend

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# Read 123 lines
catkin_ws
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
# at the end of the (bashrc) file add the following line
# (source /home/wesam/catkin_ws/devel/setup.bash)
# then

```

