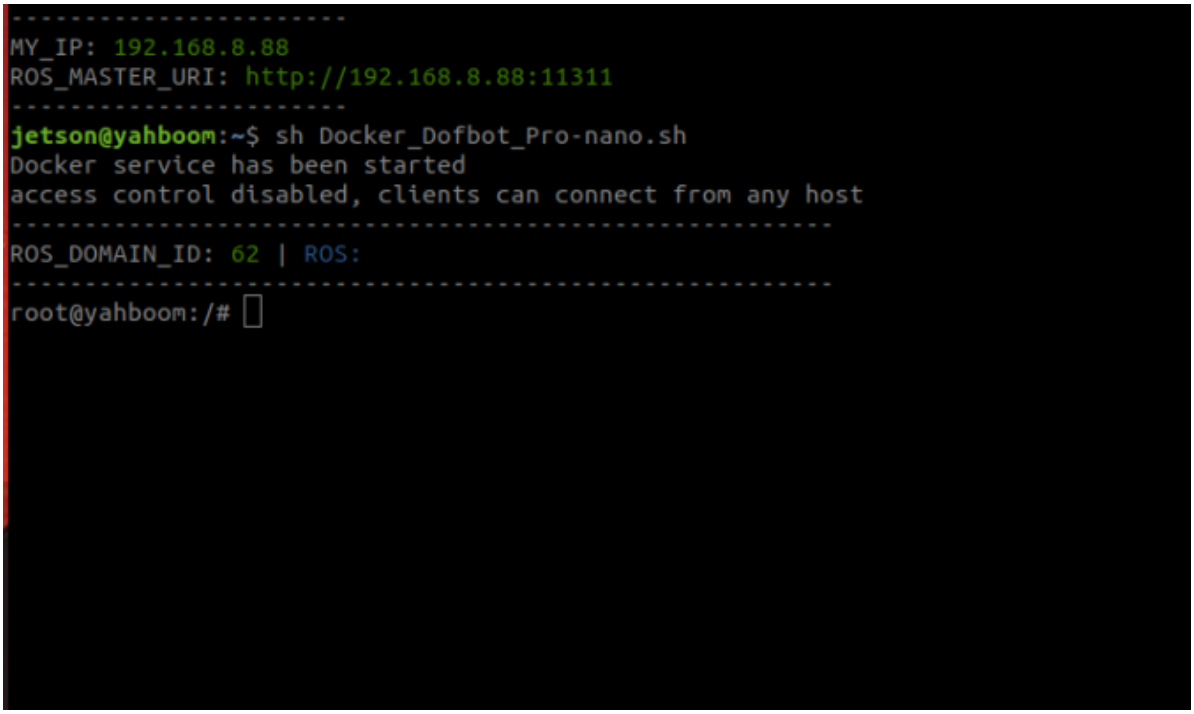
Dofbot_Pro Jetson-Nano Version Startup Instructions

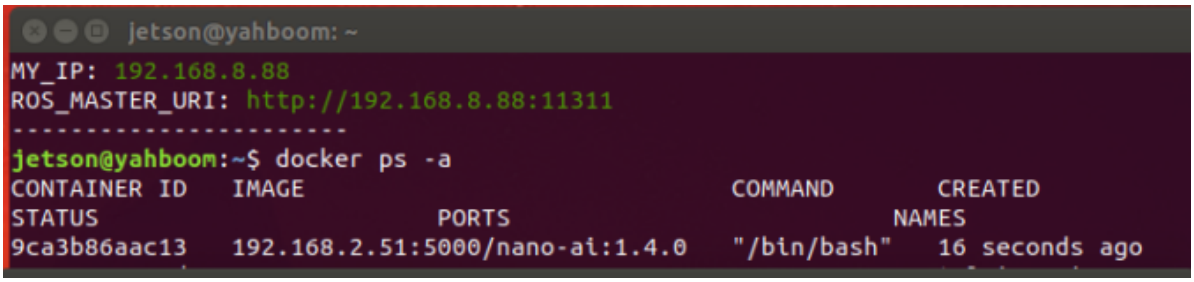
From 【5. 2D Visual Tracking Course】 to 【14. Voice Control for 3D Grasping Course (Sorting & Tracking)】 can run on the main board, **the main board runs on ubuntu18.04+ros1-melodic environment**. If you need to learn the ROS2 version feature code and run AI large model programs, you need to enter the docker container (**container environment is Ubuntu22.04+ros2-humble**) to run them. For first-time entry into the docker container, you can use the following command:

```
sh Docker_Dofbot_Pro-nano.sh
```



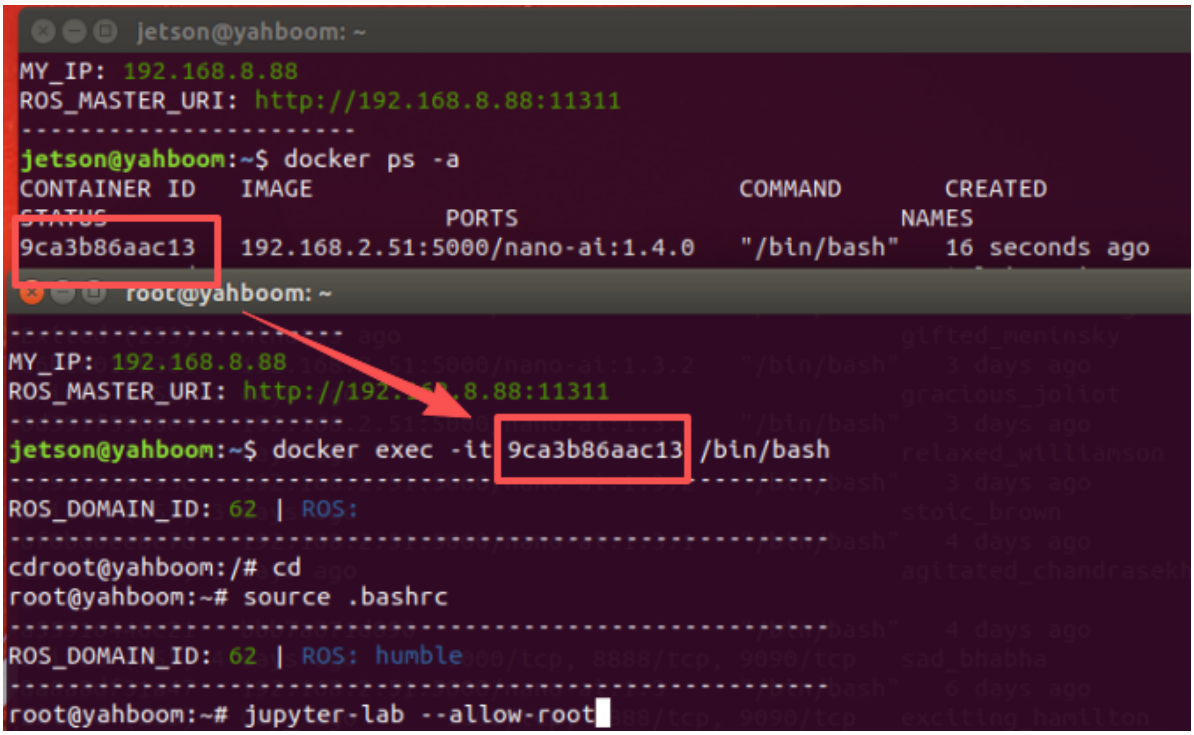
All subsequent commands in the ROS2 version tutorials need to be entered in the terminal of this container. After entering docker, the system will generate a container ID. You can check the container ID using the following command. Open a terminal on the main board and input:

```
docker ps
```



Based on the image name and startup time, you can find the container ID. Use this ID to enter the same container each time. Open a terminal on the main board and enter the following command to enter the container:

```
#Replace the container ID with the queried ID
docker exec -it containerID /bin/bash
```



After entering the container, we are not in the /root directory. You need to execute the following commands to enter the /root directory and refresh the environment variables to be able to find the functions. Enter these commands in the docker container terminal:

```
cd
source .bashrc
```

If you want to view the code in the container, you need to enter the following command in the docker container terminal to start jupyter:

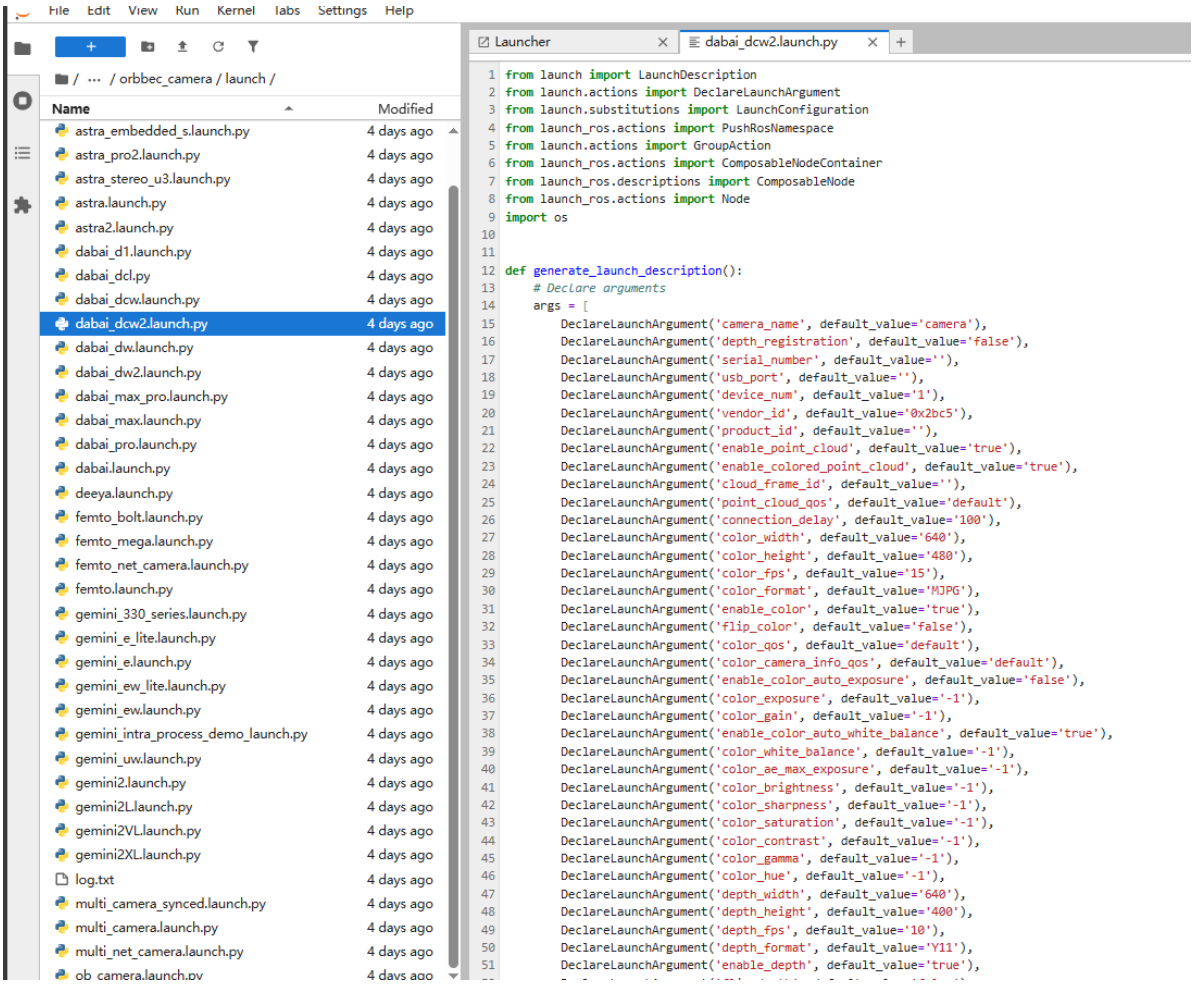
```
jupyter-lab --allow-root
```

```
------------------------------------------------------
ROS_DOMAIN_ID: 62 | ROS: humble
------------------------------------------------------
root@yahboom:~# jupyter-lab --allow-root

[I 2025-11-21 18:40:24.186 ServerApp] jupyter_lsp | extension was successfully linked.
[I 2025-11-21 18:40:24.203 ServerApp] jupyter_server_terminals | extension was successfully linked.
[I 2025-11-21 18:40:24.229 ServerApp] jupyterlab | extension was successfully linked.
[I 2025-11-21 18:40:24.249 ServerApp] notebook | extension was successfully linked.
[I 2025-11-21 18:40:26.000 ServerApp] notebook_shim | extension was successfully linked.
[I 2025-11-21 18:40:26.137 ServerApp] notebook_shim | extension was successfully loaded.
[I 2025-11-21 18:40:26.147 ServerApp] jupyter_lsp | extension was successfully loaded.
[I 2025-11-21 18:40:26.152 ServerApp] jupyter_server_terminals | extension was successfully loaded.
[I 2025-11-21 18:40:26.179 LabApp] JupyterLab extension loaded from /root/.local/lib/python3.10/site-
packages/jupyterlab
[I 2025-11-21 18:40:26.179 LabApp] JupyterLab application directory is /root/.local/share/jupyter/lab
[I 2025-11-21 18:40:26.181 LabApp] Extension Manager is 'pypi'.
[I 2025-11-21 18:40:26.606 ServerApp] jupyterlab | extension was successfully loaded.
[I 2025-11-21 18:40:26.621 ServerApp] notebook | extension was successfully loaded.
[I 2025-11-21 18:40:26.625 ServerApp] Serving notebooks from local directory: /root
[I 2025-11-21 18:40:26.625 ServerApp] Jupyter Server 2.17.0 is running at:
[I 2025-11-21 18:40:26.625 ServerApp] http://yahboom:9999/lab
[I 2025-11-21 18:40:26.625 ServerApp]     http://127.0.0.1:9999/lab
[I 2025-11-21 18:40:26.625 ServerApp] Use Control-C to stop this server and shut down all kernels (tw
ice to skip confirmation).
[I 2025-11-21 18:40:26.809 ServerApp] Skipped non-installed server(s): basedpyright, bash-language-se
rver, dockerfile-language-server-nodejs, javascript-typescript-langserver, jedi-language-server, juli
a-language-server, pyrefly, pyright, python-language-server, python-lsp-server, r-languageserver, sql
-language-server, texlab, typescript-language-server, unified-language-server, vscode-css-languageser
ver-bin, vscode-html-languageserver-bin, vscode-json-languageserver-bin, yaml-language-server
```

Then, open a browser and enter the main board's IP address + :9999 in the browser's address bar. For example, if my main board's IP address is 192.168.8.88, then enter **192.168.8.88:9999** in the address bar and press Enter.

Enter password: **yahboom**, click 【Log in】 to enter the container to view the code.



If you shut down and restart, and need to re-enter the previous container, you need to restart the container first, then enter it. Enter the following command to restart the closed container:

```
#Replace the container ID here with your own container ID, you can refer to above and get it through docker ps -a
docker restart containerID
```

After restarting the container, you can enter the container using the following command:

```
#Replace the container ID with the queried ID
docker exec -it containerID /bin/bash
```