

Connect to microROS agent

Note: Before connecting to the agent, you need to select the alarm level and radar model through the oled screen before starting the connection.

1. Open the agent

If you are using the factory virtual machine system, you can enter in the terminal:

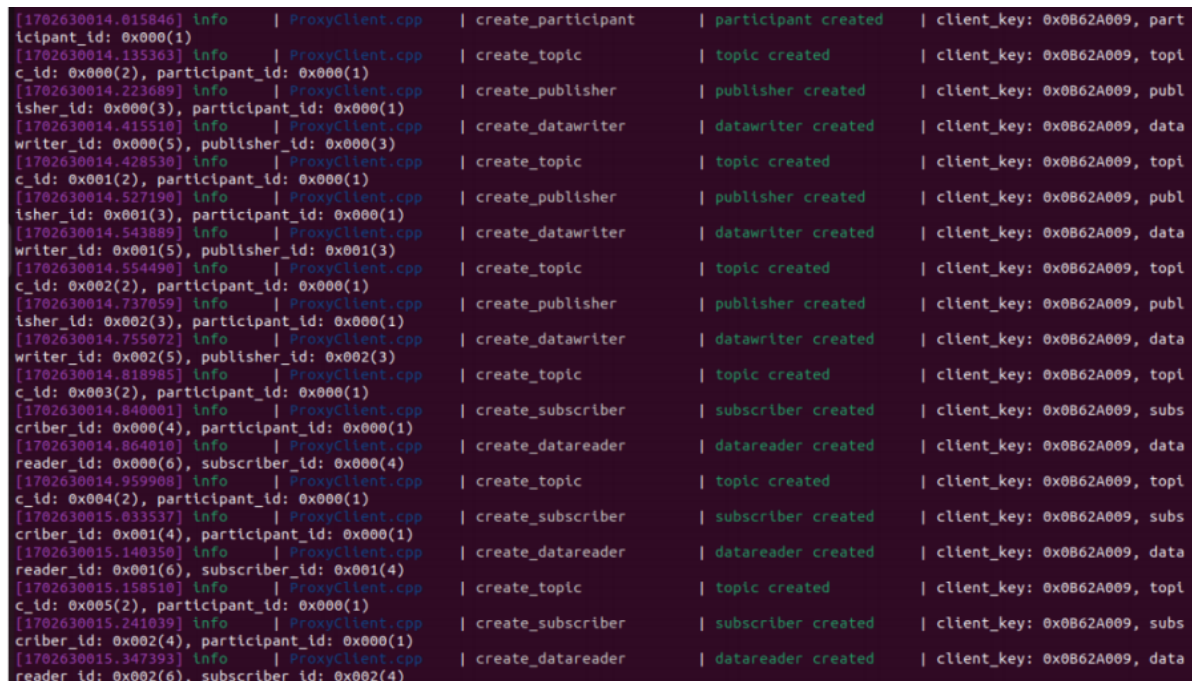
```
sh ~/start_agent_computer.sh
```

If you are using a third-party virtual machine system, you need to install the docker development environment first, and open the terminal to enter:

```
docker run -it --rm -v /dev:/dev -v /dev/shm:/dev/shm --privileged --net=host  
microros/micro-ros-agent:humble udp4 --port 8090 -v4
```

2. Connect to the agent

Turn on the power switch of the robot, automatically connect to the agent, and the connection is successful as shown in the figure below



```
[1702630014.015846] Info | ProxyClient.cpp | create_participant | participant created | client_key: 0x0B62A009, part  
icipant_id: 0x000(1)  
[1702630014.135363] Info | ProxyClient.cpp | create_topic | topic created | client_key: 0x0B62A009, topl  
c_id: 0x000(2), participant_id: 0x000(1)  
[1702630014.223689] Info | ProxyClient.cpp | create_publisher | publisher created | client_key: 0x0B62A009, publ  
isher_id: 0x000(3), participant_id: 0x000(1)  
[1702630014.415510] Info | ProxyClient.cpp | create_datawriter | datawriter created | client_key: 0x0B62A009, data  
writer_id: 0x000(5), publisher_id: 0x000(3)  
[1702630014.428530] Info | ProxyClient.cpp | create_topic | topic created | client_key: 0x0B62A009, topl  
c_id: 0x001(2), participant_id: 0x000(1)  
[1702630014.527190] Info | ProxyClient.cpp | create_publisher | publisher created | client_key: 0x0B62A009, publ  
isher_id: 0x001(3), participant_id: 0x000(1)  
[1702630014.543889] Info | ProxyClient.cpp | create_datawriter | datawriter created | client_key: 0x0B62A009, data  
writer_id: 0x001(5), publisher_id: 0x001(3)  
[1702630014.554490] Info | ProxyClient.cpp | create_topic | topic created | client_key: 0x0B62A009, topl  
c_id: 0x002(2), participant_id: 0x000(1)  
[1702630014.737059] Info | ProxyClient.cpp | create_publisher | publisher created | client_key: 0x0B62A009, publ  
isher_id: 0x002(3), participant_id: 0x000(1)  
[1702630014.755072] Info | ProxyClient.cpp | create_datawriter | datawriter created | client_key: 0x0B62A009, data  
writer_id: 0x002(5), publisher_id: 0x002(3)  
[1702630014.818985] Info | ProxyClient.cpp | create_topic | topic created | client_key: 0x0B62A009, topl  
c_id: 0x003(2), participant_id: 0x000(1)  
[1702630014.840001] Info | ProxyClient.cpp | create_subscriber | subscriber created | client_key: 0x0B62A009, subs  
criber_id: 0x000(4), participant_id: 0x000(1)  
[1702630014.864010] Info | ProxyClient.cpp | create_datareader | datareader created | client_key: 0x0B62A009, data  
reader_id: 0x000(6), subscriber_id: 0x000(4)  
[1702630014.959908] Info | ProxyClient.cpp | create_topic | topic created | client_key: 0x0B62A009, topl  
c_id: 0x004(2), participant_id: 0x000(1)  
[1702630015.033537] Info | ProxyClient.cpp | create_subscriber | subscriber created | client_key: 0x0B62A009, subs  
criber_id: 0x001(4), participant_id: 0x000(1)  
[1702630015.140350] Info | ProxyClient.cpp | create_datareader | datareader created | client_key: 0x0B62A009, data  
reader_id: 0x001(6), subscriber_id: 0x001(4)  
[1702630015.158510] Info | ProxyClient.cpp | create_topic | topic created | client_key: 0x0B62A009, topl  
c_id: 0x005(2), participant_id: 0x000(1)  
[1702630015.241039] Info | ProxyClient.cpp | create_subscriber | subscriber created | client_key: 0x0B62A009, subs  
criber_id: 0x002(4), participant_id: 0x000(1)  
[1702630015.347393] Info | ProxyClient.cpp | create_datareader | datareader created | client_key: 0x0B62A009, data  
reader_id: 0x002(6), subscriber_id: 0x002(4)
```

Note: If the connection is not successful, please check and confirm the configuration parameters of the robot, whether it can connect to the local area network normally, and whether the agent IP address and port number correspond.

3. Test ROS node

Open the ROS2 terminal environment and enter the following command to view the /YB_PLAMSLAM_Node node name

```
ros2 node list
```

```
yahboom@yahboom-VM:~$ ros2 node list
/YB_PLAMSLAM_Node
yahboom@yahboom-VM:~$
```

If the /YB_PLAMSLAM_Node node cannot be searched, please check and confirm that the ROS DOMAIN ID of the .bashrc file on the virtual machine/computer must be consistent with the configuration on the microROS control board to search for node information.

```
export ROS_DOMAIN_ID=20
```

```
[2024-12-05 14:40:26.914]# RECV ASCII>
Hello Yahboom!
Firmware Version: V1.0.0
Do Main ID: 15
```

