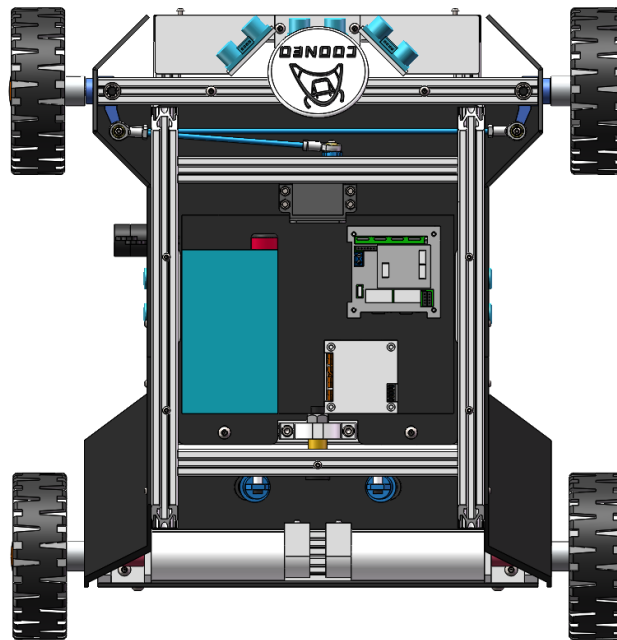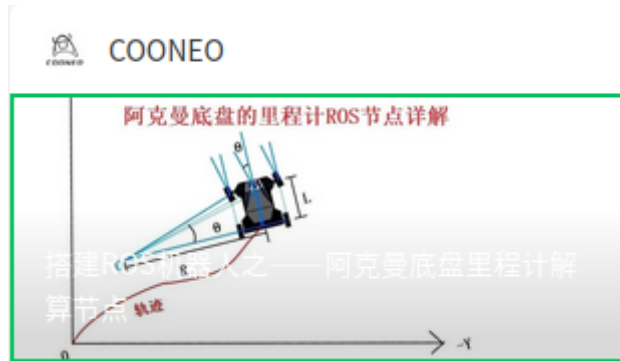# Neor_mini_ROS_Tutorials

Chapter 1 : Ackerman mobile base odometer node tutorial

Corresponding WeChat article

Step 1 : Download neor_mini/Neor_min_ROS_Tutorials/mini_motor_adaptor/ ROS example node.

```
# open a terminal
git clone https://github.com/COONEO/neor_mini.git

 # copy mini_motor_adaptor ROS node in your ROS workspace_folder/src
cd neor_mini/Neor_min_ROS_Tutorials/
cp -r mini_motor_adaptor/  your workspace/src/
```

Step 2 : Check your STM32 (or other Mirocontroller chip) Port in your PC

```
# open a terminal
ls /dev

# remember your device name ,P.S. ttyUSB*
```

Step 3 : check the "mini_motor_adaptor/src/mini_motor_adaptor_node.cpp" file and Revise ser_port.port()

```
70      MotorAdaptor()
71      {
72          sub_nav_ = n.subscribe("cmd_vel", 5, &MotorAdaptor::nav_callback, this);
73
74          odom_pub_ = n.advertise<nav_msgs::Odometry>("wheel_odom", 10);
75
76          ser_car.setPort("/dev/ttyUSB0");      // 这里的端口需要自己实际环境 调整。
77          ser_car.setBaudrate(115200);
78          serial::Timeout timeout1 = serial::Timeout::simpleTimeout(10);
79          ser_car.setTimeout(timeout1);
80          ser_car.open();
81
82
83          lastest_response_time_ = ros::Time::now();
84          lastest_send_time_ = ros::Time::now();
85
86          //打开两个线程，分别执行两个任务函数
87          std::thread s(&MotorAdaptor::send_thread, this);
88          s.detach();
89
90          std::thread e(&MotorAdaptor::rec_encoders, this);
91          e.detach();
92
93          ROS_INFO("Initial successfully!");
94      }
```

P.S. remember save your corrections.

Step 4 : Running the mini_motor_adaptor ROS node.

```
# open a terminal and inside in your ROS workspace folder
cd your ROS workspace folder
catkin_make
source devel/setup.bash
sudo chmod 0777 /dev/ttyUSB*     # replace your port name
roslaunch mini_motor_adaptor mini_motor_adaptor.launch
```

If your node launch success,it will subscribe the "cmd_vel" velocity Topic and publish the "wheel_odom" odometry Topic.