**Competition report**

**Problems encountered in the preparation of the game:**

**1st.The conflict between the PWM signal output and the servo library**

**Q**:There are six GPIOs having the PWM output function on tne Arduino uno r3.With the analogWrite() function, we can output some 8 bit PWM signals on these GPIOs.However,when we used the servo library(Servo.h),we couldn’t get normal PWM signals on other GPIOs.Finally,we found that something defined in the servo library would disturb the clock in the Arduino which was key of making PWM signals.It meaned that we couldn’t use the servo library anymore,because we had to make PWM signals for motors while controlling the servo.

**S**:We reserched on the servo domination principle and created a function which could control the servo.

**2st. Steering logic and raceway**

**Q**:The logic of our car is that using a ultrasonic module to scan obstacles and keep away from them by turning off.But the distance from the car to obstacles would disturb the logic of turning due to using ultrasonic.

**S**:Try more and more on the raceway and find the best [parameters](http://dict.cn/parameters).

**Competition cooperation:**

Chen Jialiang: Collecte information about ROS.

Huang Xiaohong: Assemble the car and reinforce its structure.

Liu Hanxuan: Programme on Arduino and debug it.

Luo Jiahao: Study ROS and try to use it for the communication between Linux and Arduino.

Lin Xingqiao: Collect information about Arduino.

**Feelings:**

We are so excited that we won the first place.During the competition,we have learned that how to use ROS and how to programme on Arduino.More and more,we got experience that how to cooperating with others and make the team more efficient.