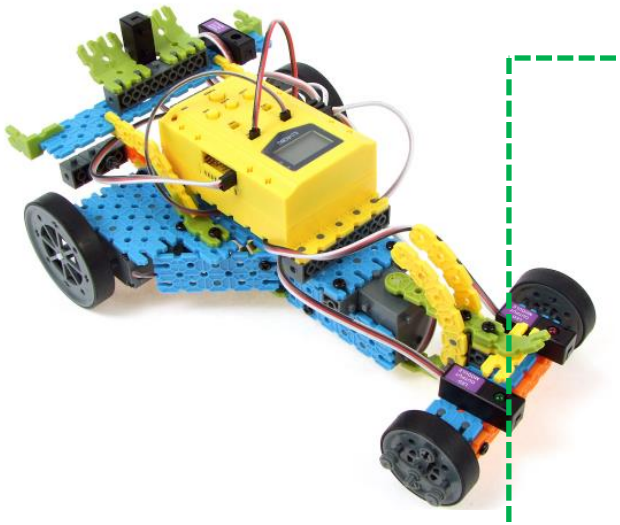
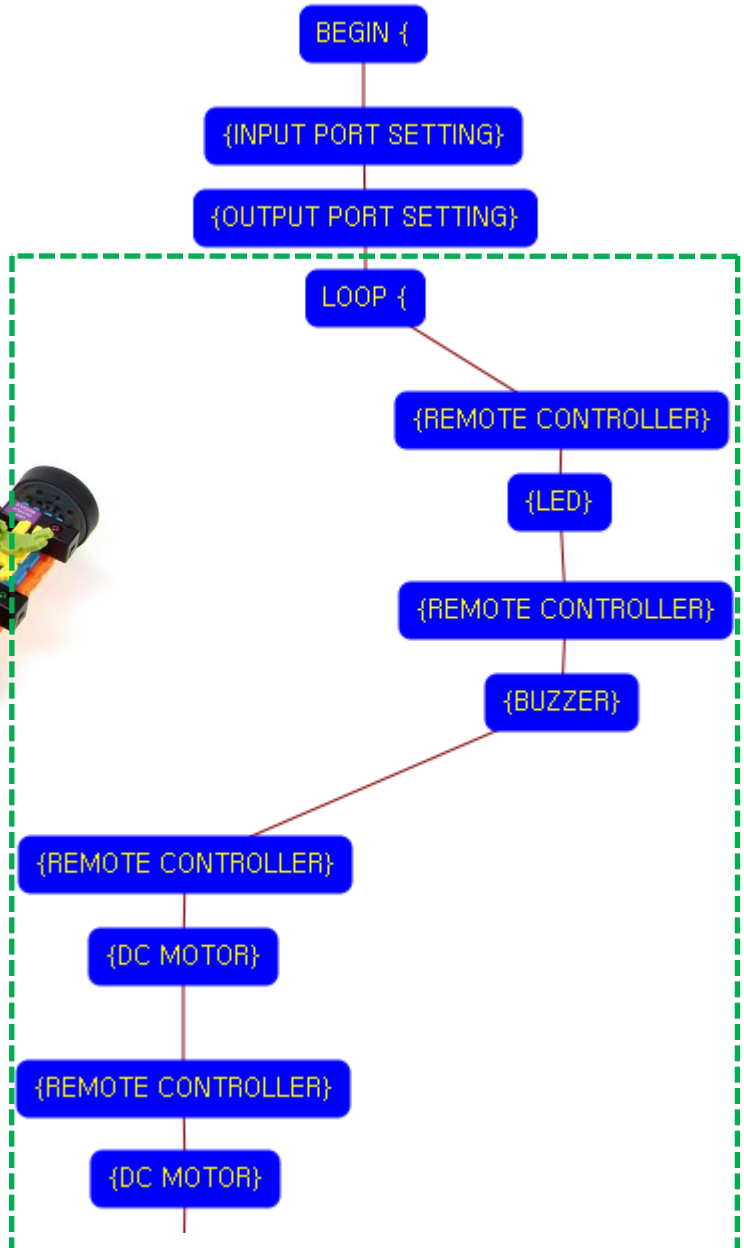
EQ-ROBO Programming : Racing car



Input: Remote signal receiver
Output: DC motor, Servo motor
LED, Buzzer
Work: Driving, LED flashing,
Buzzer beeping



Program begin

Input port setting

Output port setting

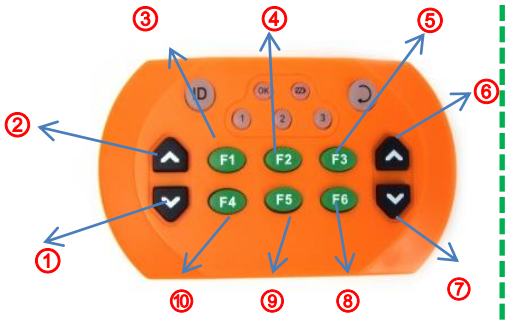
LOOP starting point (Repeat the command)

Case 1
Key of remote controller :
RIGHT UP
LEDs are flashing

Case 2
Key of remote controller :
RIGHT DOWN
Buzzer is beeping

Case 3
Key of remote controller :
LEFT UP
Car goes forward

Case 4
Key of remote controller :
LEFT DOWN
Car goes backward



① Go backward
② Go forward
③ F/wheels to the left 20 degree
④ F/wheels to the front
⑤ F/wheels to the right 20 degree
⑥ LED flashing
⑦ Buzzer beeping
⑧ F/wheels to the right 60 degree
⑨ F/wheels to the front
⑩ F/wheels to the left 60 degree

{REMOTE CONTROLLER}
{SERVO MOTOR}
{REMOTE CONTROLLER}
{SERVO MOTOR}
{REMOTE CONTROLLER}
{SERVO MOTOR}
{REMOTE CONTROLLER}
{SERVO MOTOR}
{REMOTE CONTROLLER}
{SERVO MOTOR}
{REMOTE CONTROLLER}
{SERVO MOTOR}
} //LOOP END
} //END

F1

Case 5
Key of remote controller : F1
Turning the front wheels to the left 20 degree.

F2

Case 6
Key of remote controller : F2
Positioning the front wheels to the font side.

F3

Case 7
Key of remote controller : F3
Turning the front wheels to the right 20 degree.

F6

Case 8
Key of remote controller : F6
Turning the front wheels to the right 60 degree.

F4

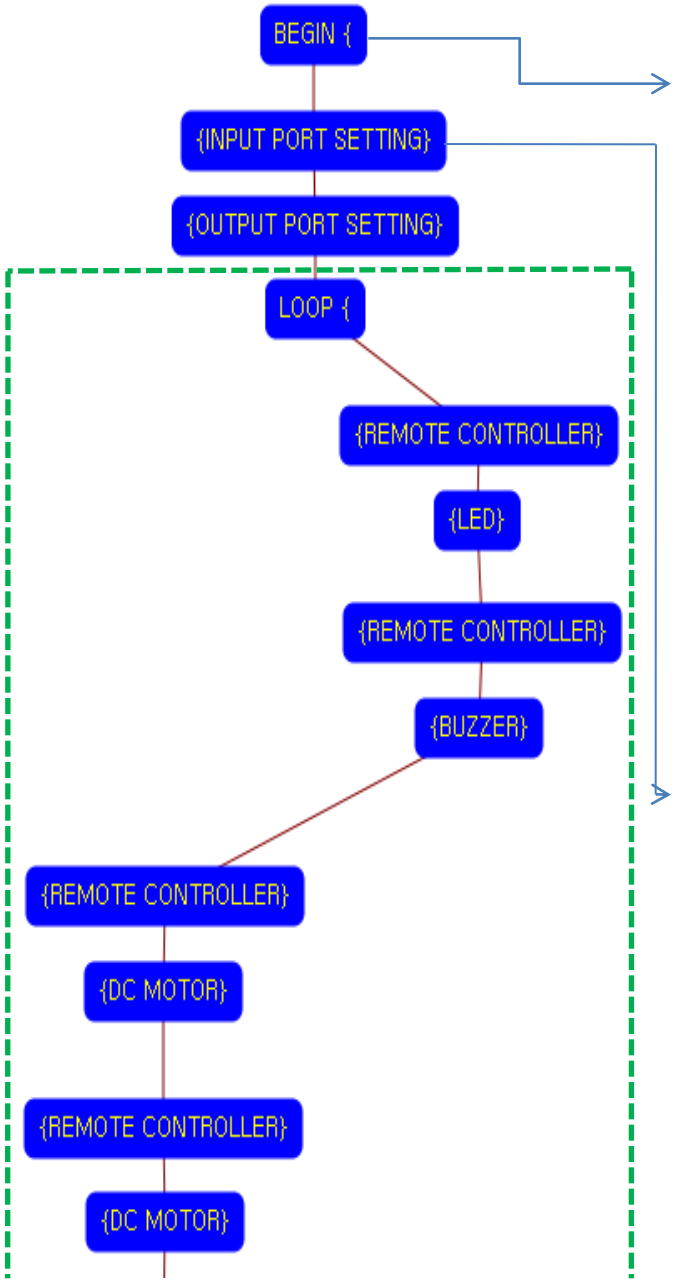
Case 9
Key of remote controller : F4
Turning the front wheels to the left 60 degree.

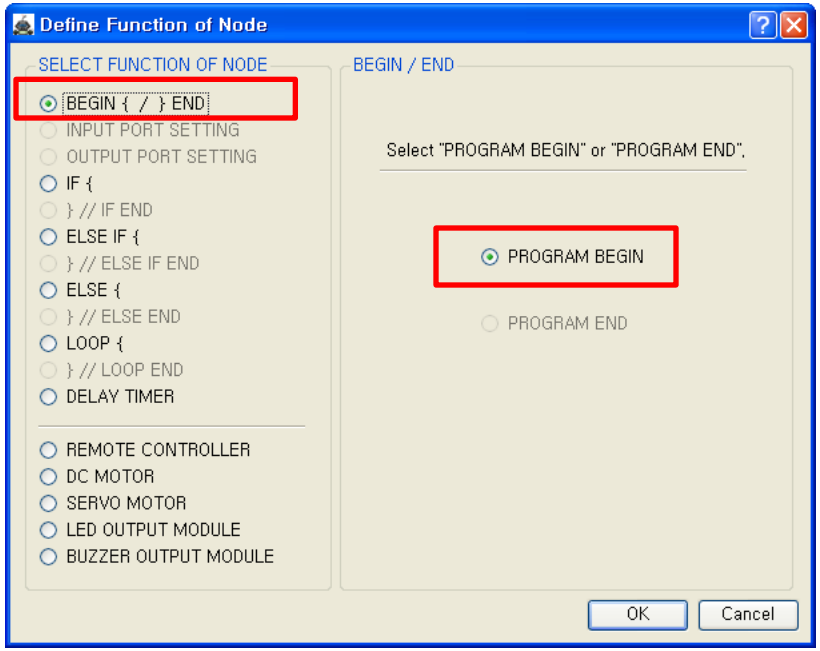
F5

Case 10
Key of remote controller : F2
Positioning the front wheels to the font side.

LOOP ending point

Program end

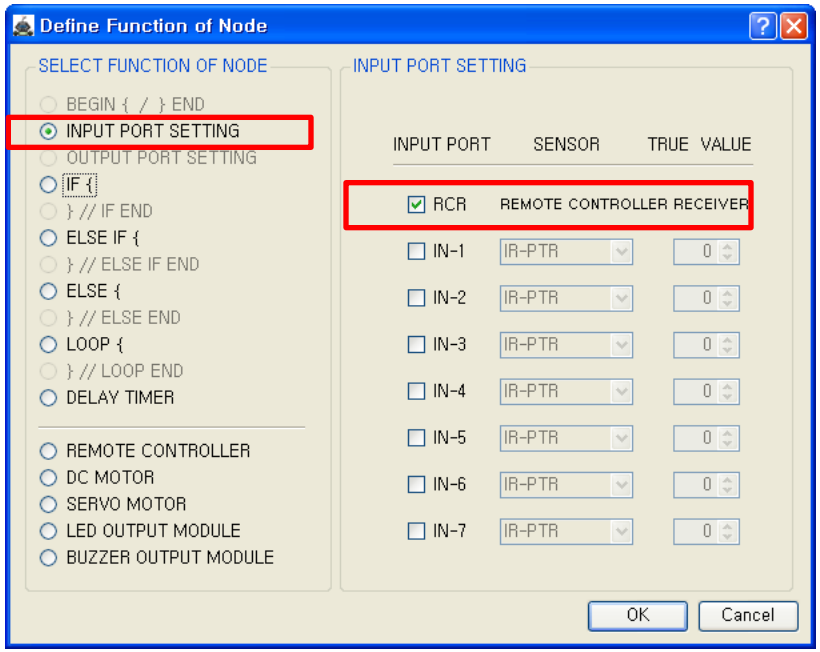




This means that program begins from hear.

You have to place this node at the first of program.

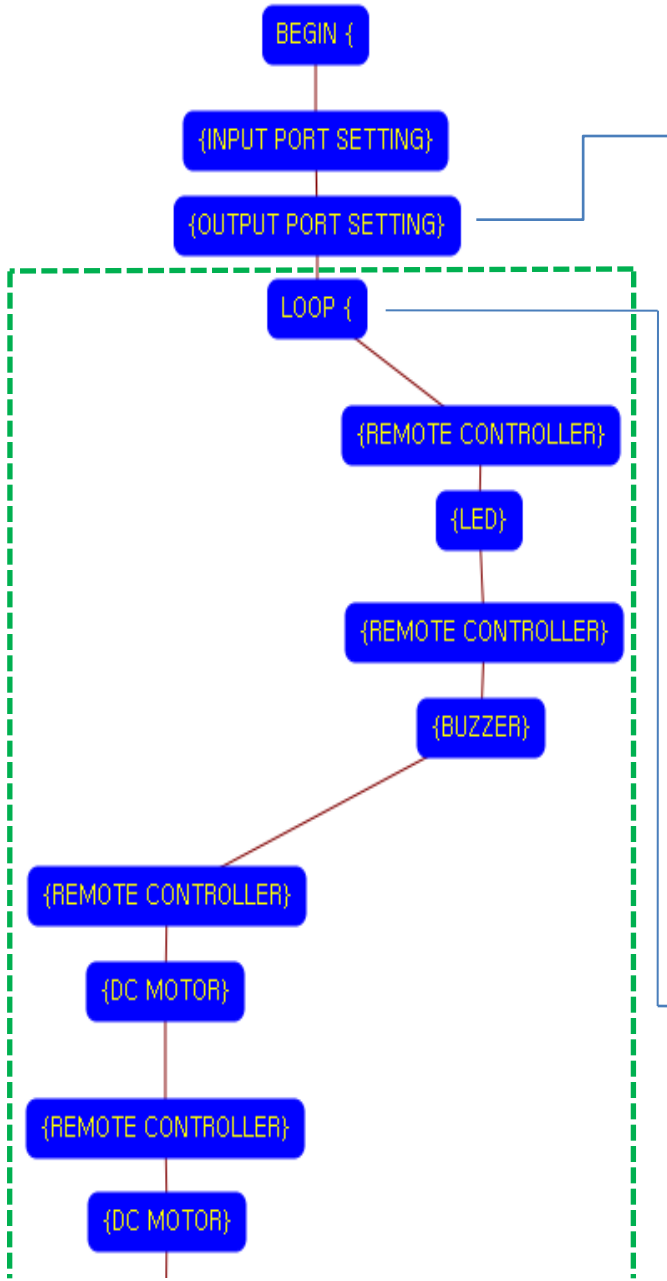
“PROGRAM END” is not active because you did not define “PROGRAM BEGIN” yet.

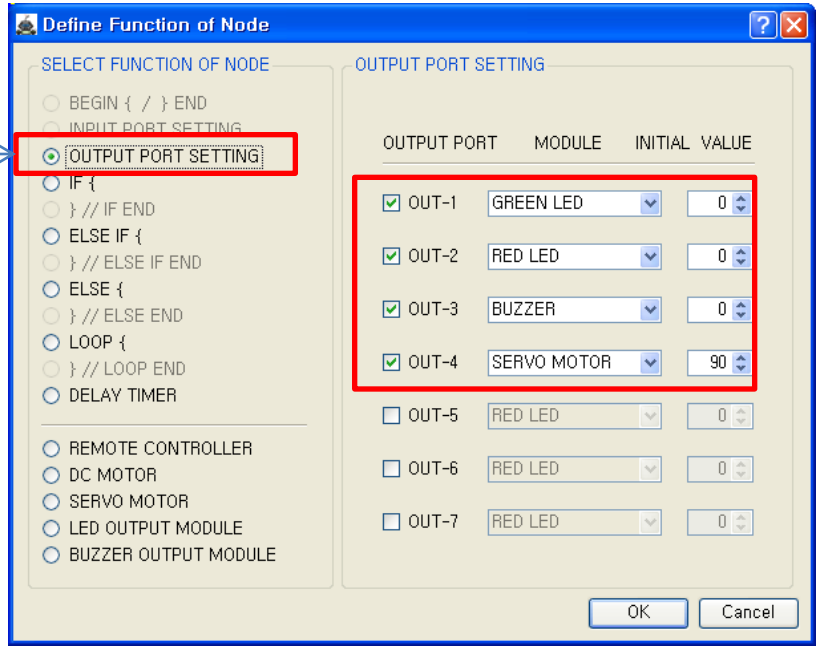


This model use 1 remote control receiver module as input device.

You have to connect the remote control receiver to the RCR input port of main board. And check the RCR in software to use.

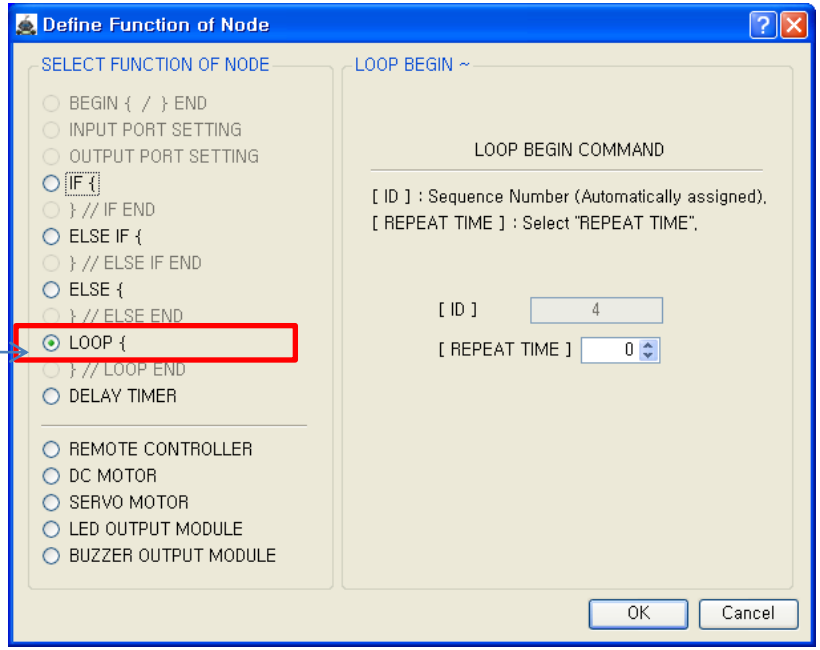
If the real connection of sensors are different to the setting on software, it will make robot to wrong operation.





You have to connect LEDs are to the OUT-1 and OUT2, buzzer is to the OUT-3, the Servo motor to the OUT-4 output port of main board. The initial values of Servo motors are to be 90.

If the real connection of output modules are different to the setting on software, it will make robot to wrong operation.

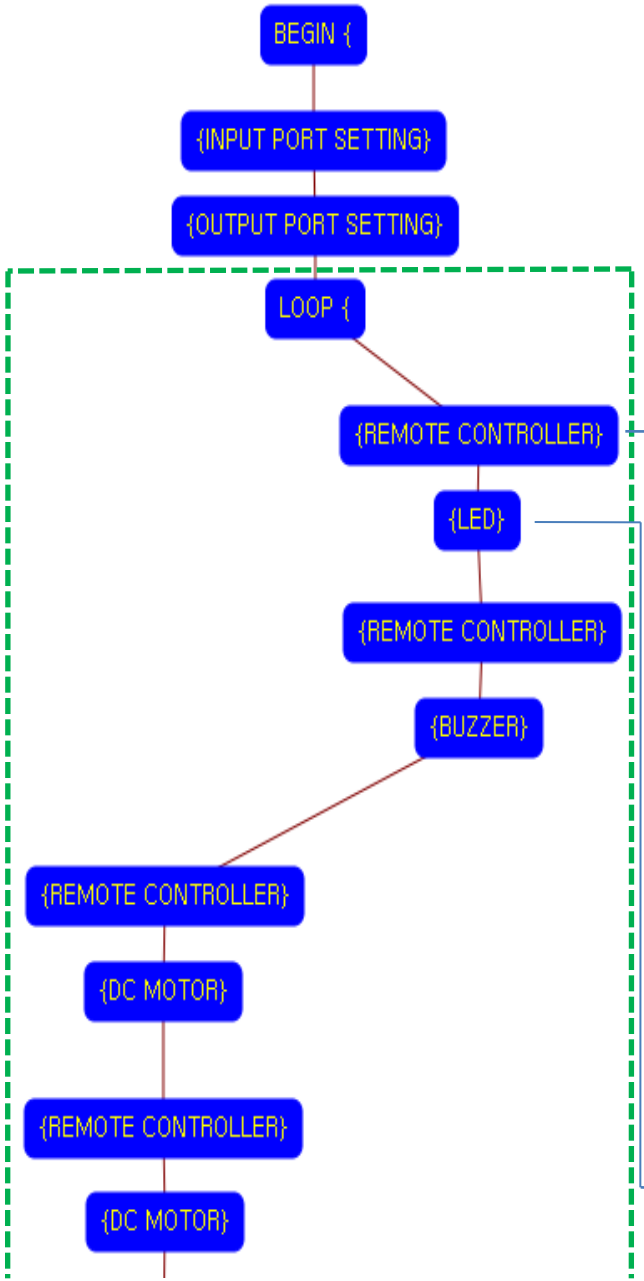


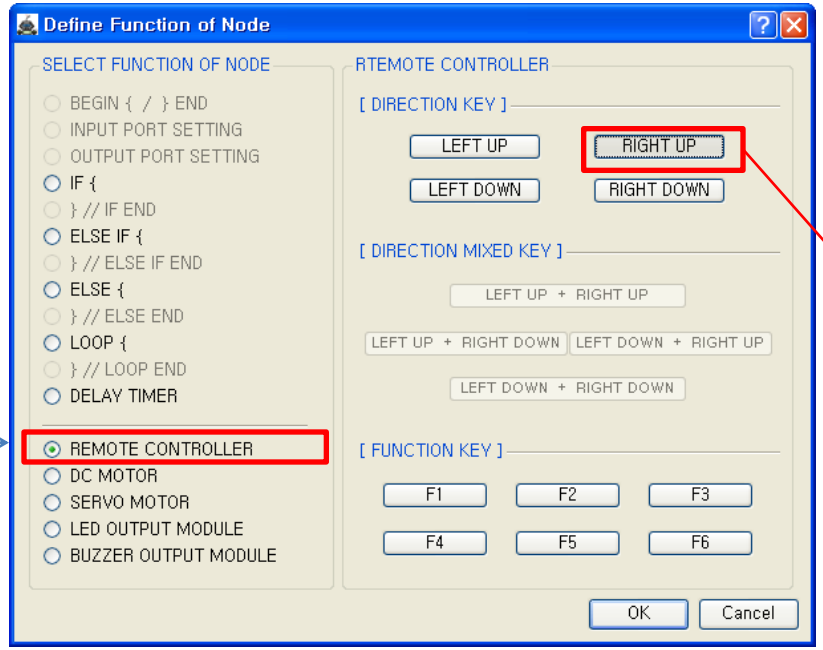
LOOP command is used to repeat the commands.

“REPEAT TIME” is the repeat number you want.
If you want permanent repetition, you have to set “0”.

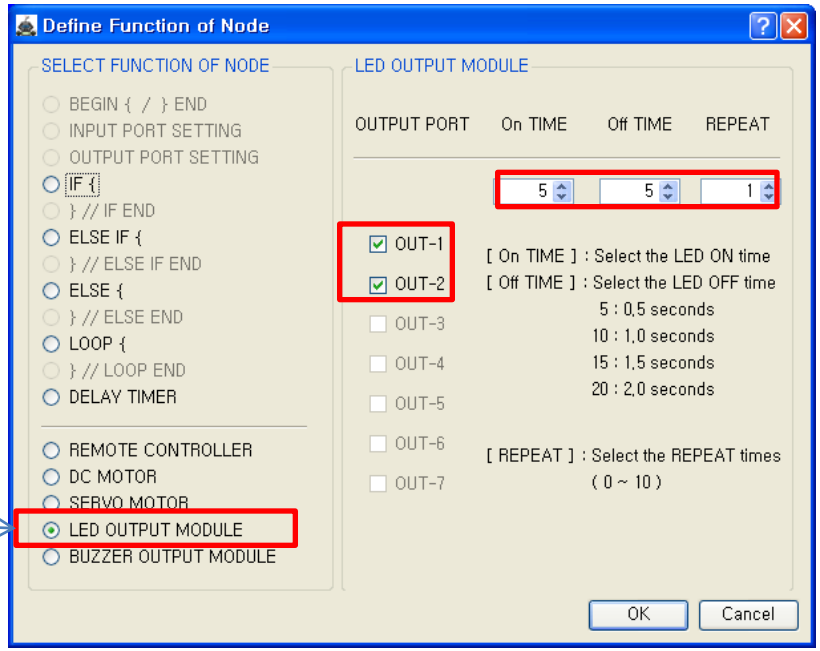
ID is automatically assigned.
You have to set the same ID at “LOOP END”.

Automatically assigned ID is different according to the sequence of making nodes.





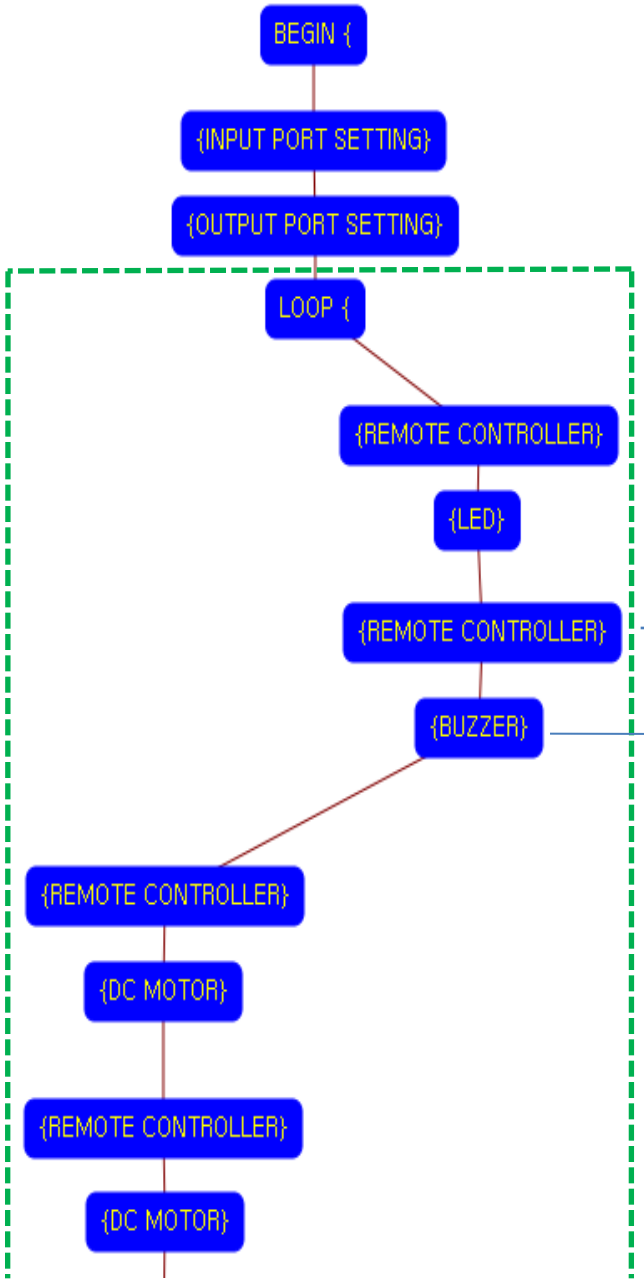
Set the “RIGHT UP ” key of remote controller.

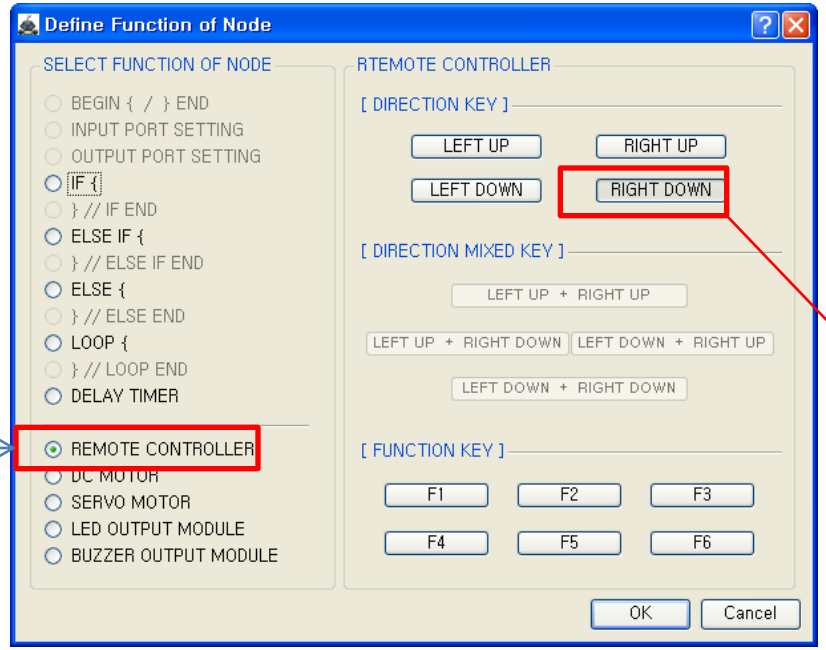


If the “RIGHT UP” key is pressed, the LEDs are flashing like as followings.

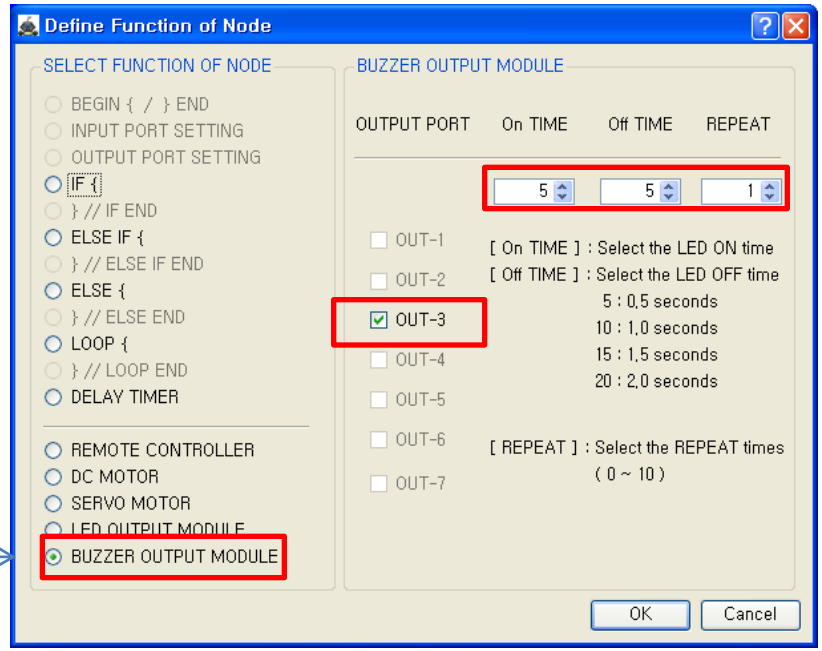
LED modules(OUT-1, OUT-2) are turn on 0.5 seconds and turn off 0.5 seconds for 1 times.

On TIME : On time of LED
Off TIME: Off time of LED
REPEAT: Repetition number





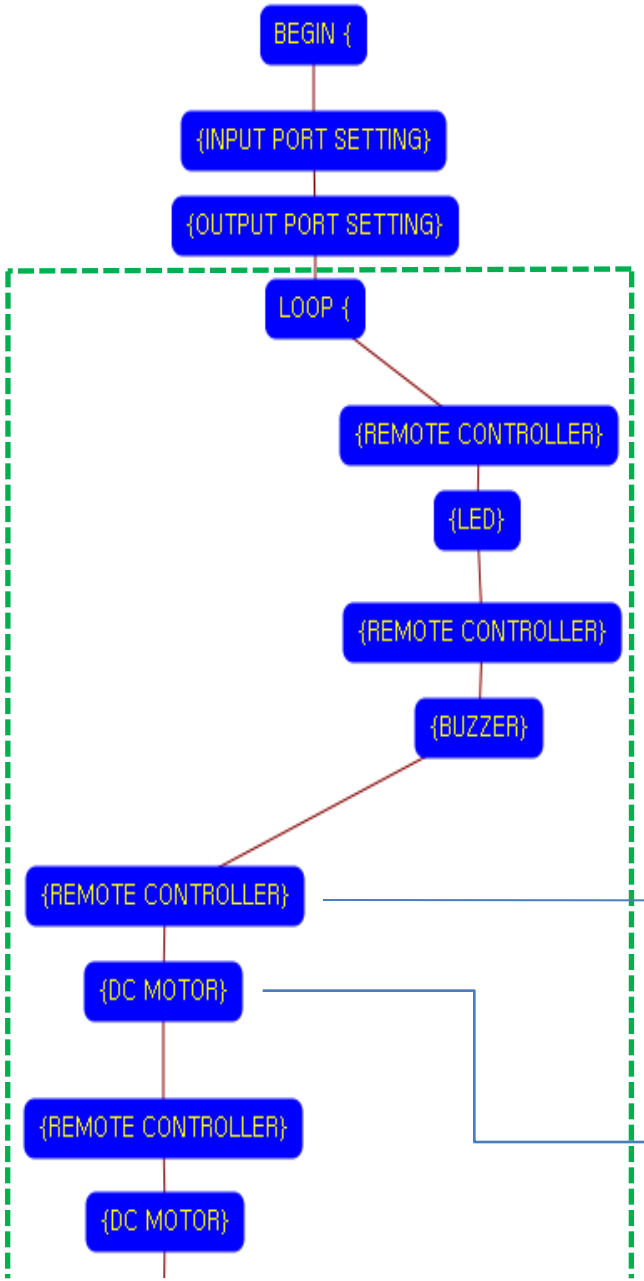
Set the “RIGHT DOWN ” key of remote controller

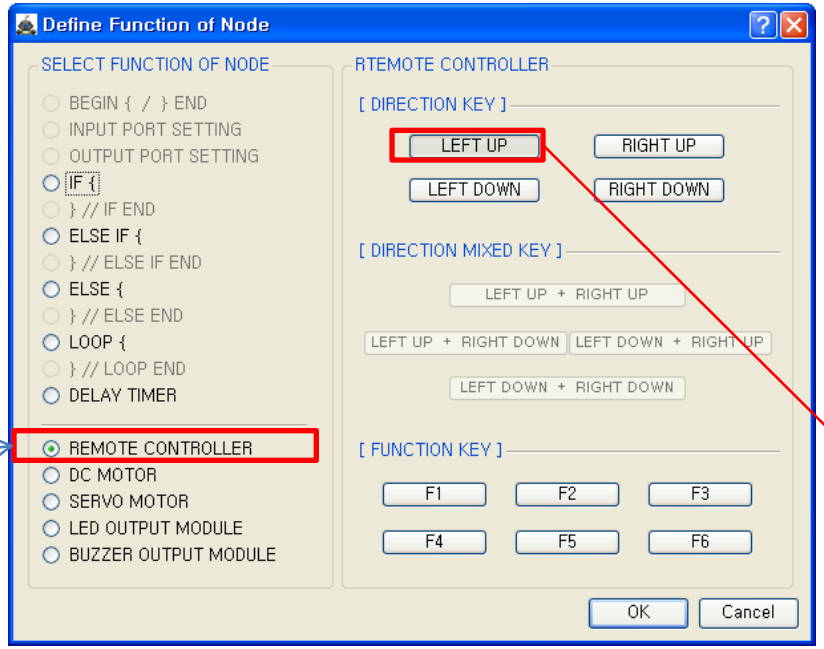


If the “RIGHT DOWN” key is pressed, the buzzer is beeping like as followings.

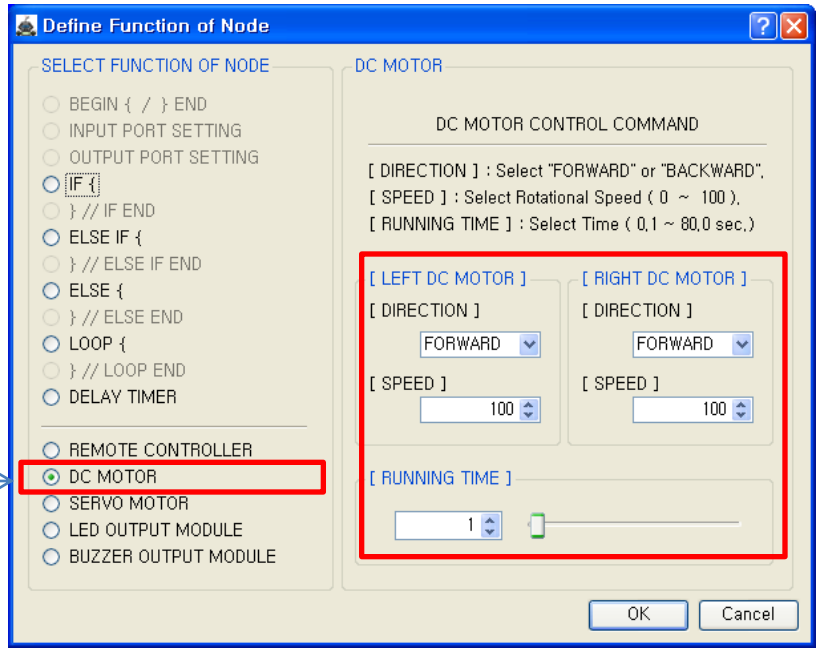
The Buzzer module(OUT-3) turns on 0.5 seconds and turns off 0.5 seconds for 1 times.

On TIME : On time of LED
Off TIME: Off time of LED
REPEAT: Repetition number





Set the “LEFT UP ” key of remote controller.

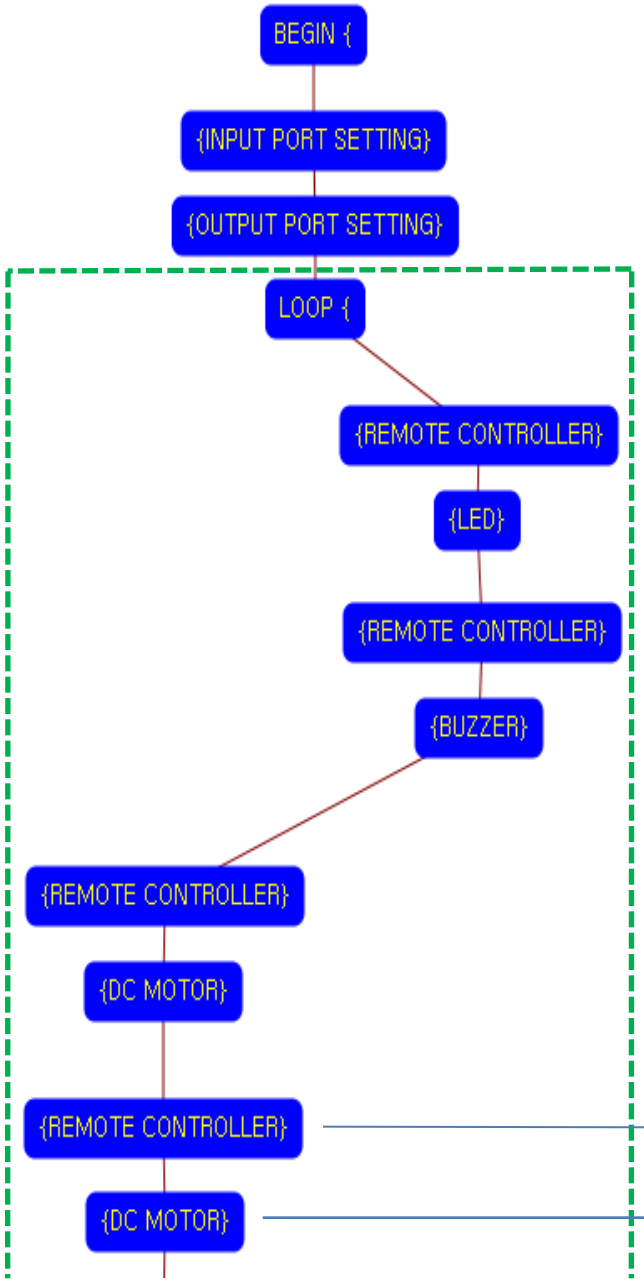


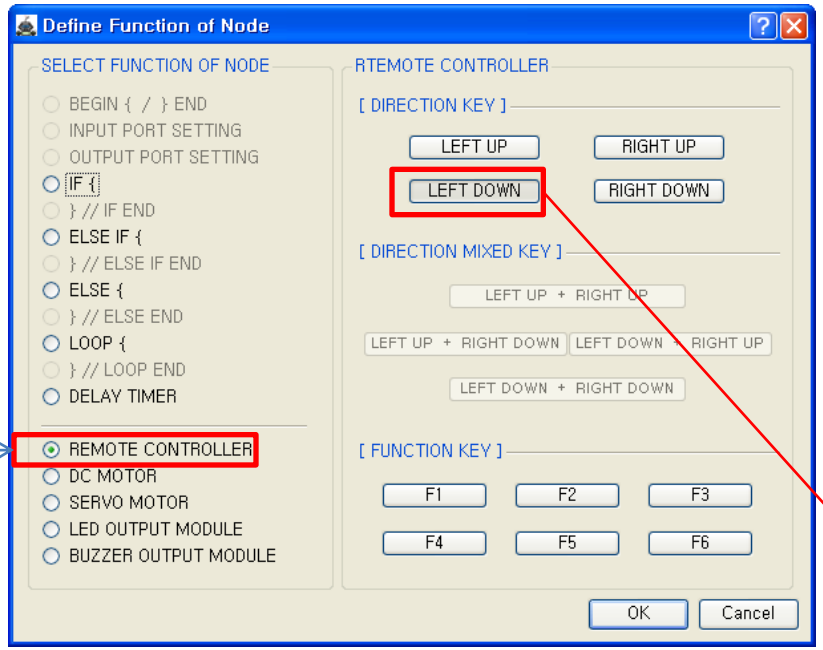
Left DC Motor
- Direction : Forward
- Speed : 100
- Running Time : 1

Right DC Motor
- Direction : Forward
- Speed : 100
- Running Time : 1

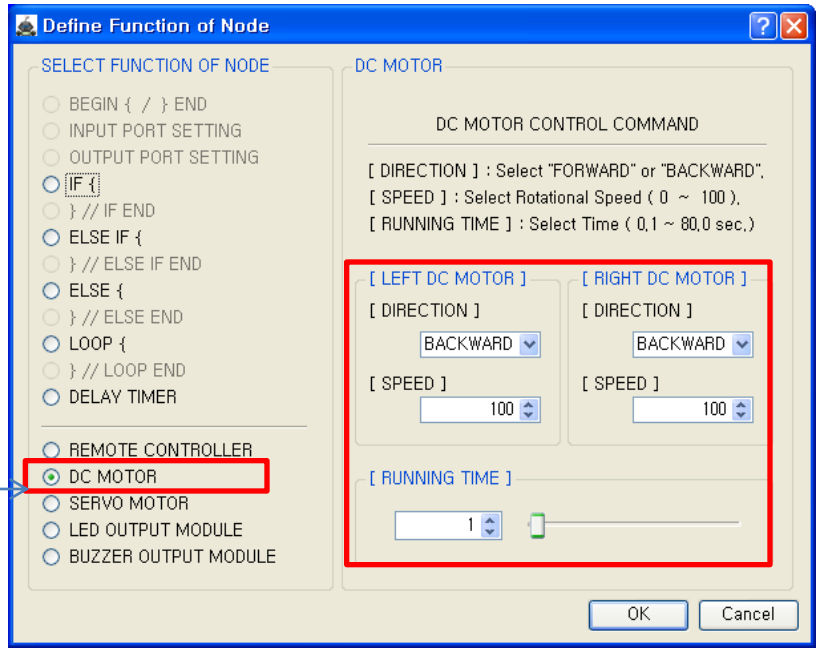
➔Robot goes forward during 0.1 second

Although the setting value of running time is 0.1 seconds, the robot is going forward continuously during the “LEFT UP” key is pressed.





Set the “LEFT DOWN ” key of remote controller.

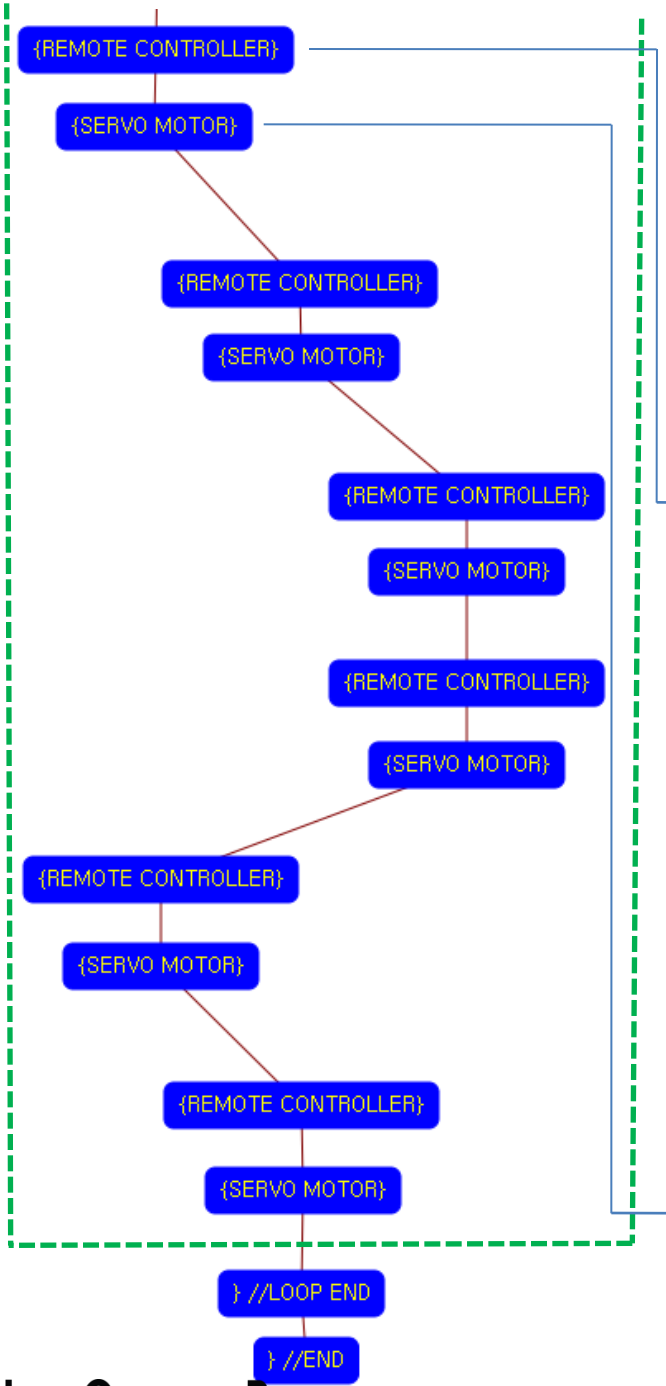


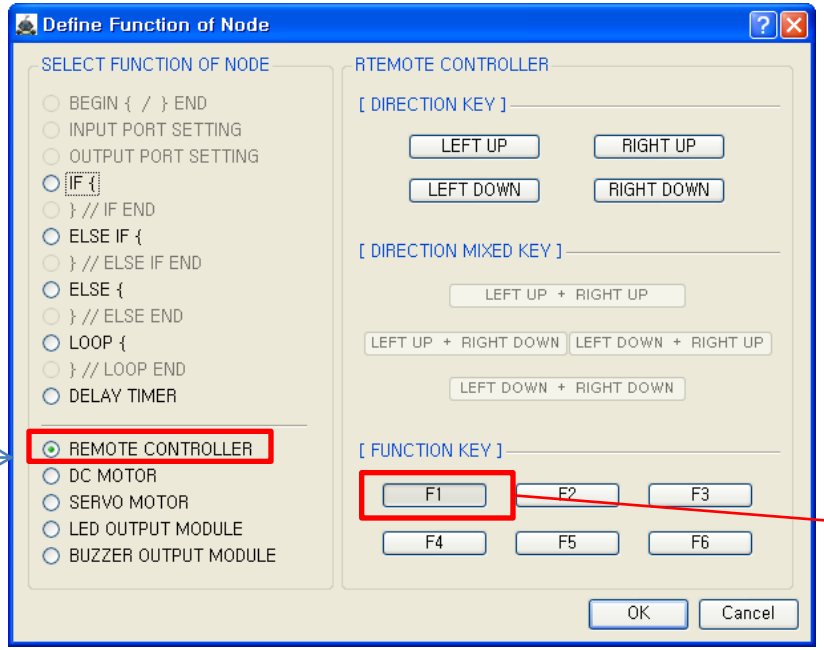
Left DC Motor
- Direction : Backward
- Speed : 100
- Running Time : 1

Right DC Motor
- Direction : Backward
- Speed : 100
- Running Time : 1

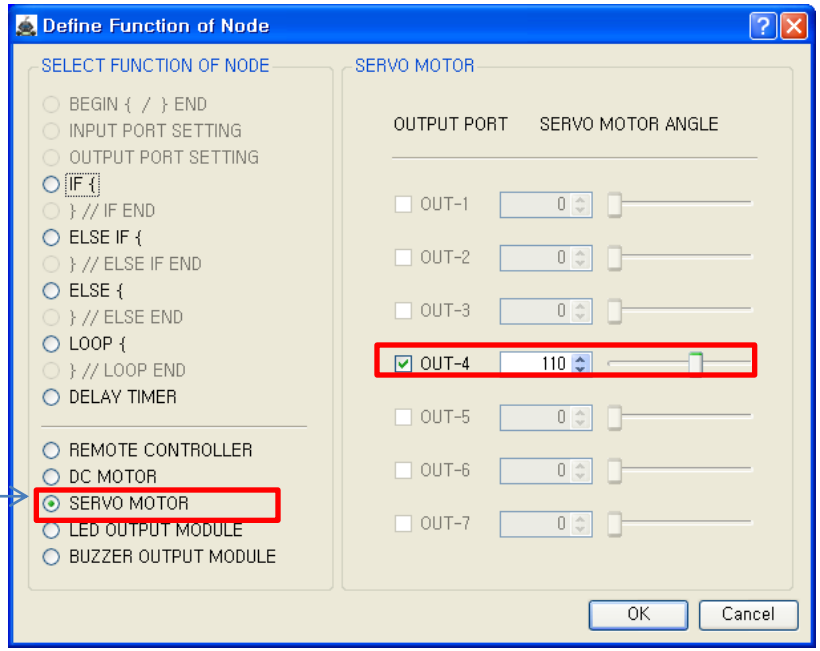
➔Robot goes backward during 0.1 second

Although the setting value of running time is 0.1 seconds, the robot is going backward continuously during the “LEFT DOWN” key is pressed.





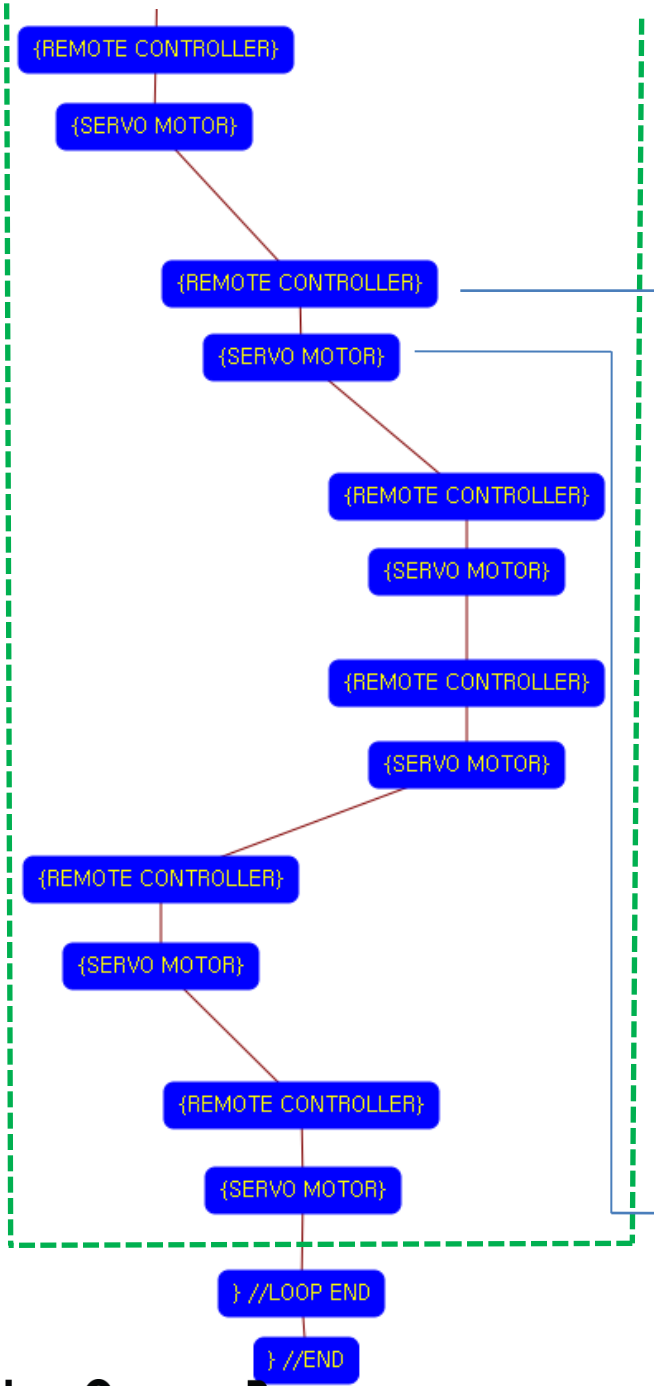
Set the “F1 ” key of remote controller.

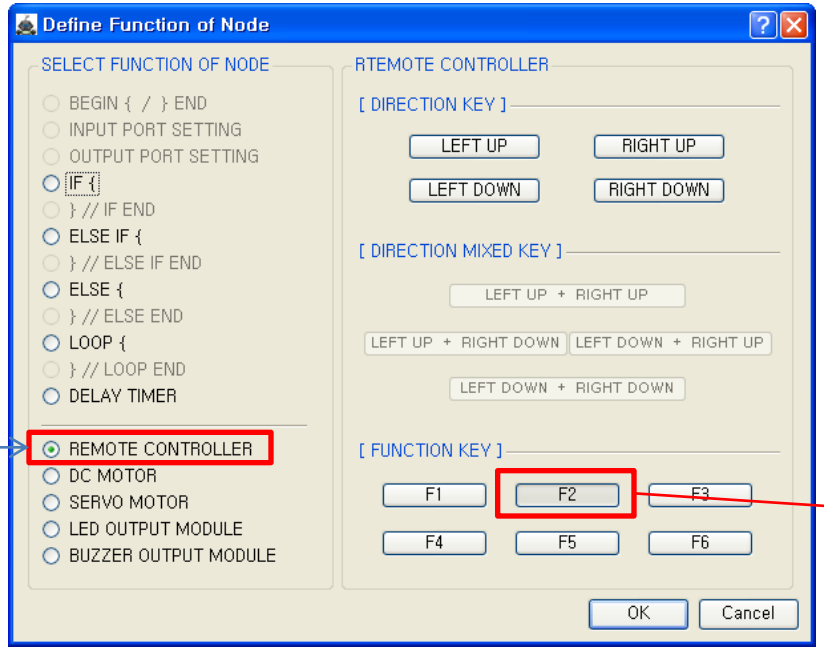


If the “F1” key is pressed, the servo motor(OUT-4) sets to the 110 degree.

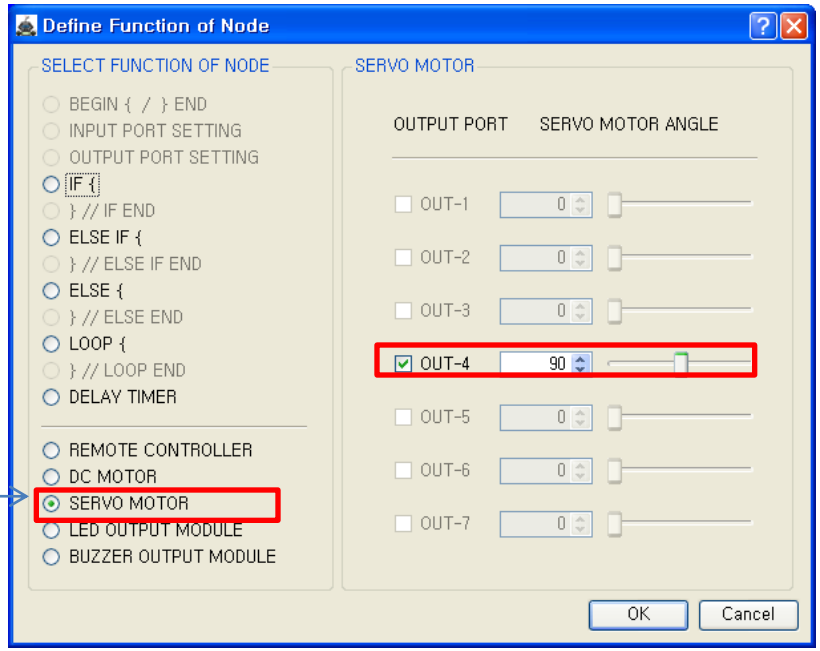
This make turning the front wheels to the left 20 degree.

(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)





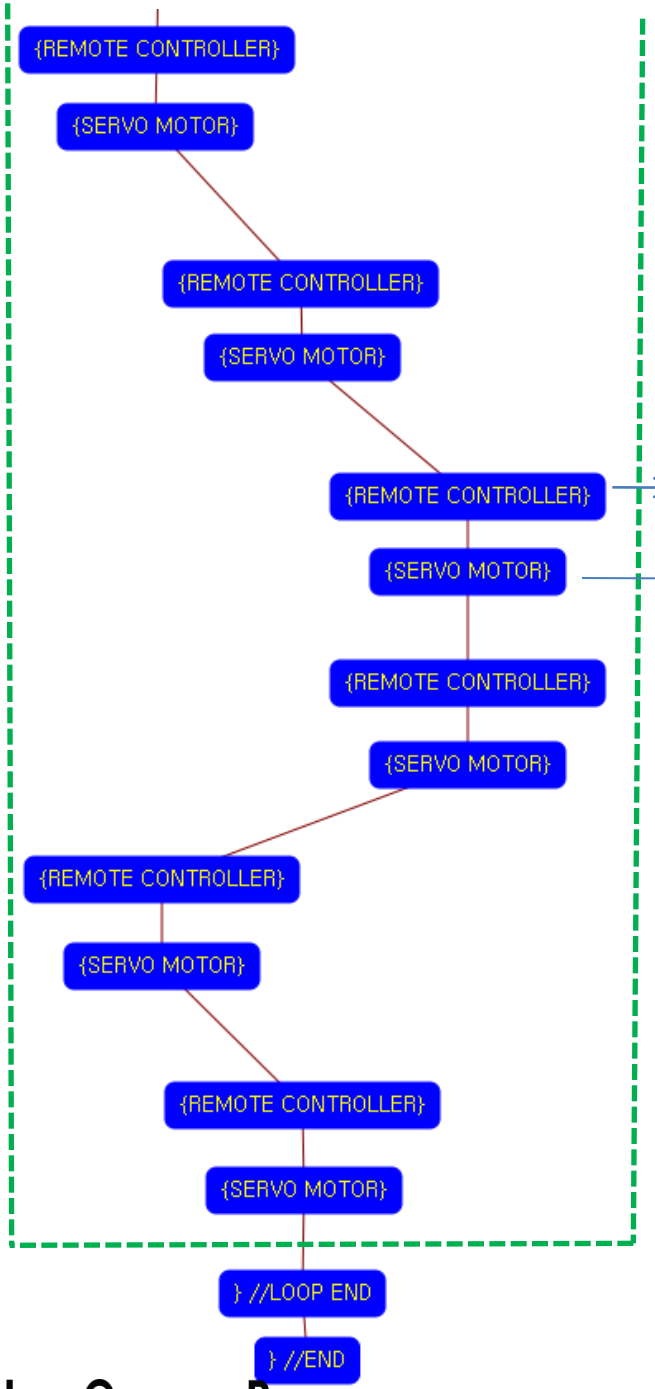
Set the “F2 ” key of remote controller.

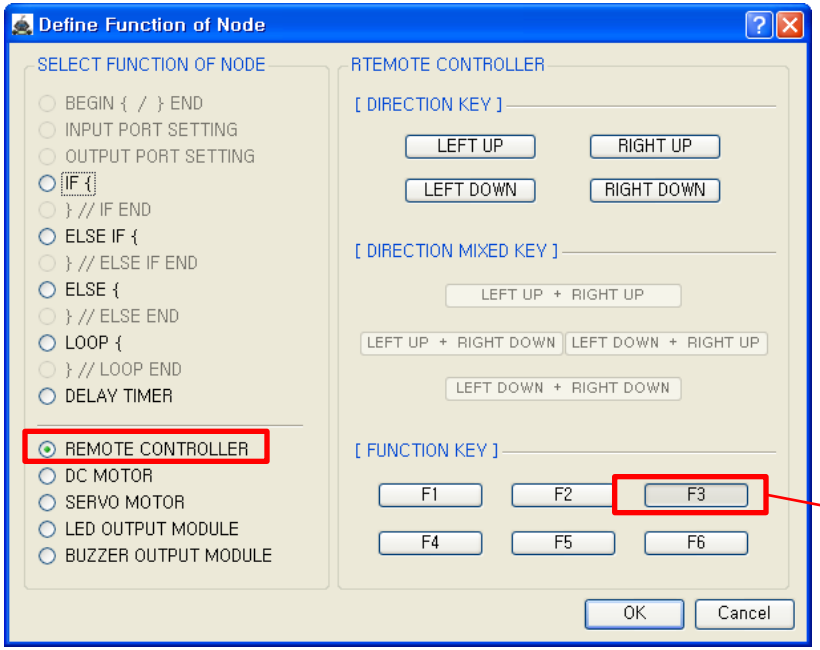


If the “F2” key is pressed, the servo motor(OUT-4) sets to the 90 degree.

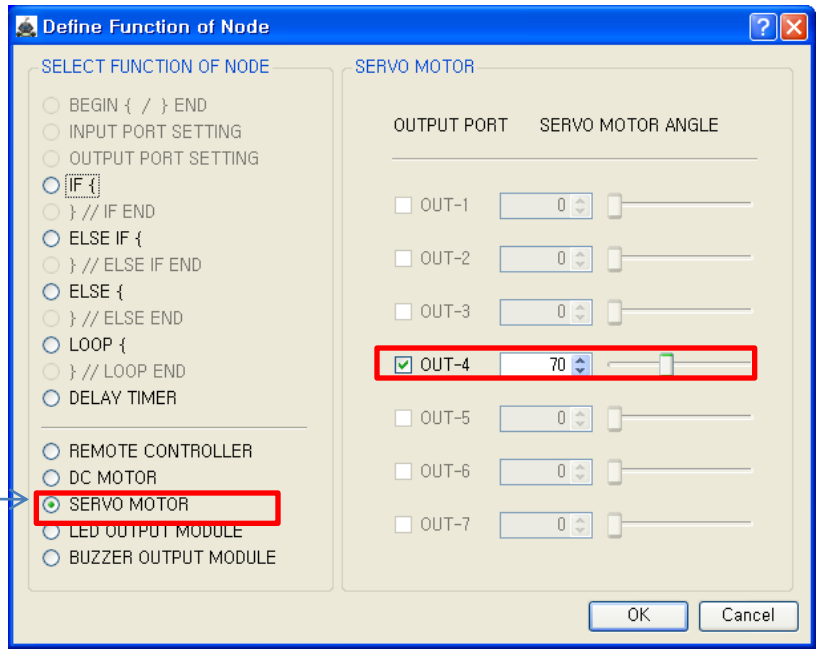
This make turning the front wheels to the front side.

(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)





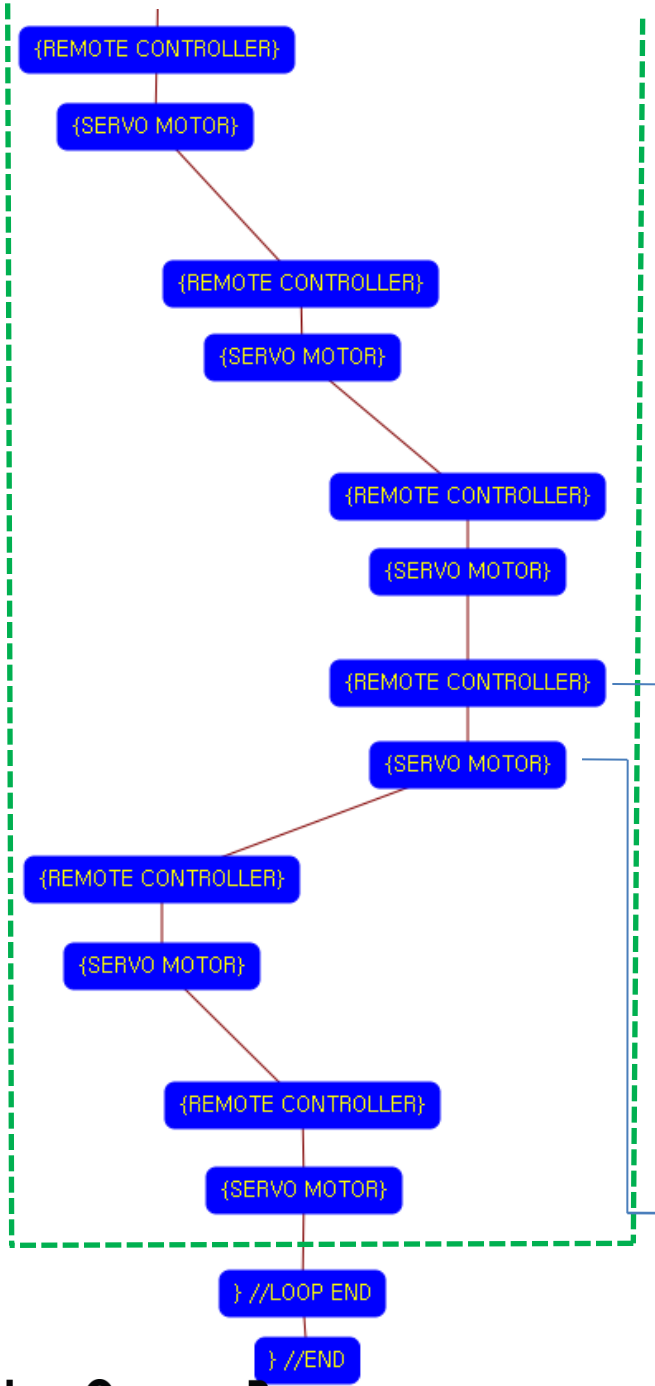
Set the “F3 ” key of remote controller.

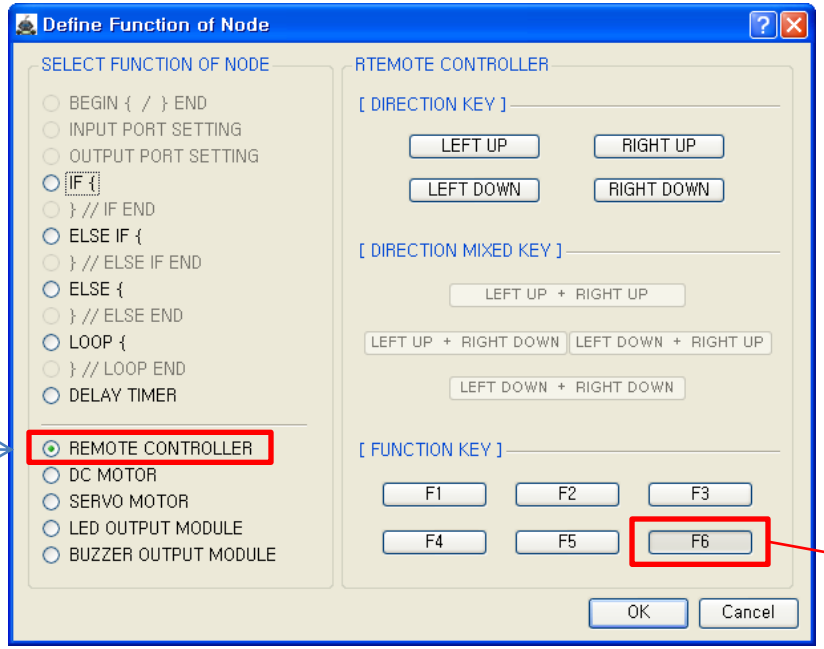


If the “F3” key is pressed, the servo motor(OUT-4) sets to the 70 degree.

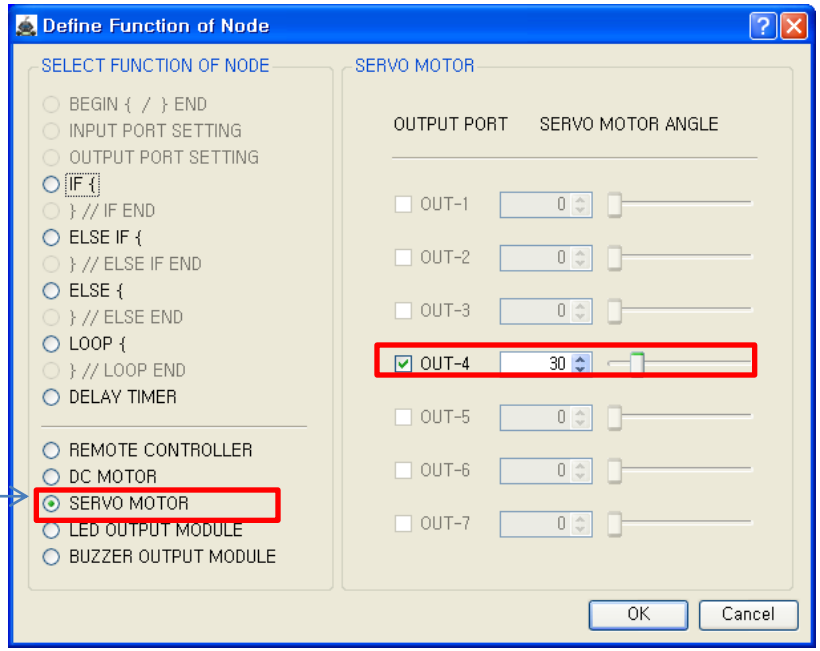
This make turning the front wheels to the right 20 degree.

(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)





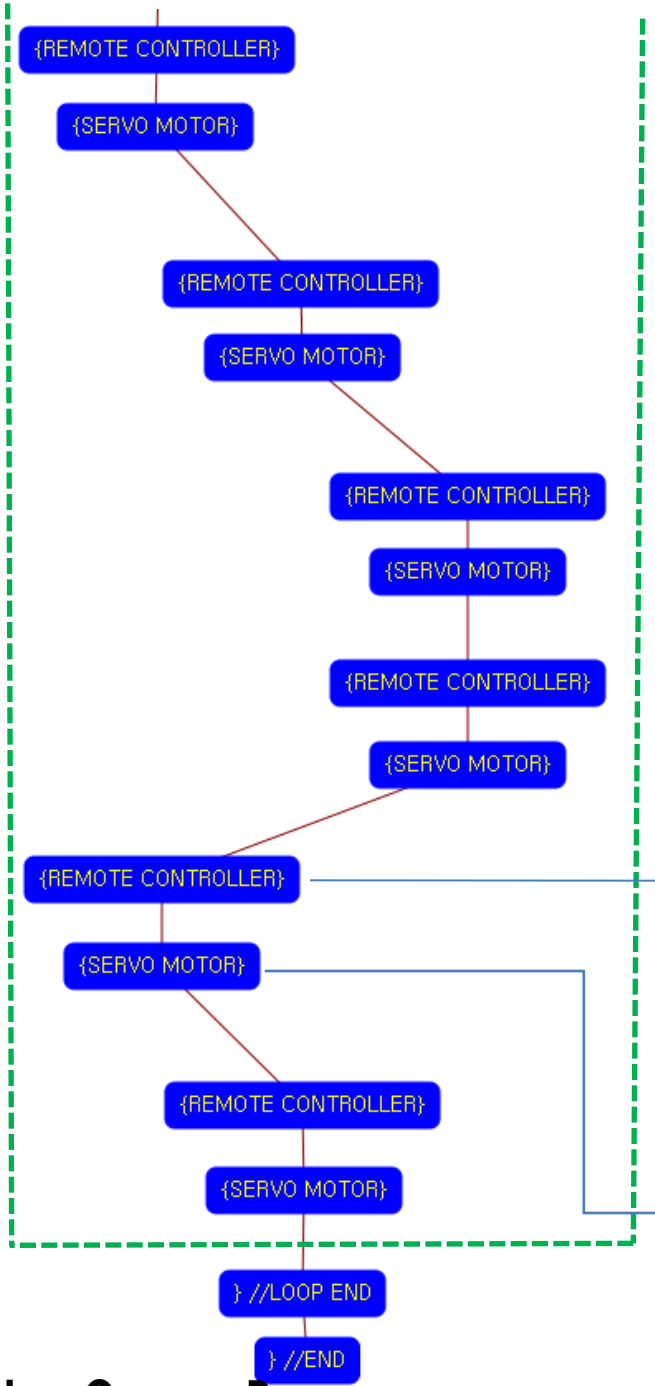
Set the “F6 ” key of remote controller.

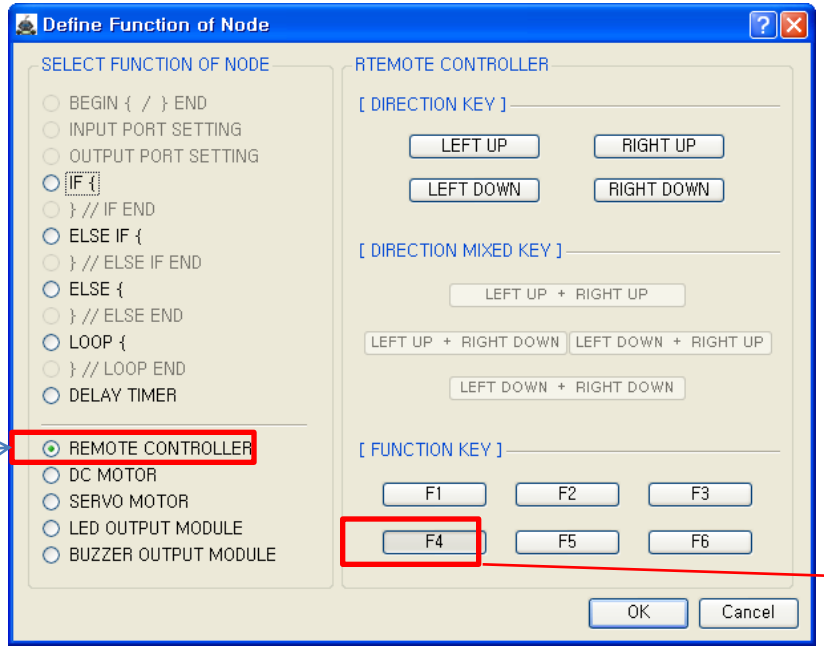


If the “F6” key is pressed, the servo motor(OUT-4) sets to the 30 degree.

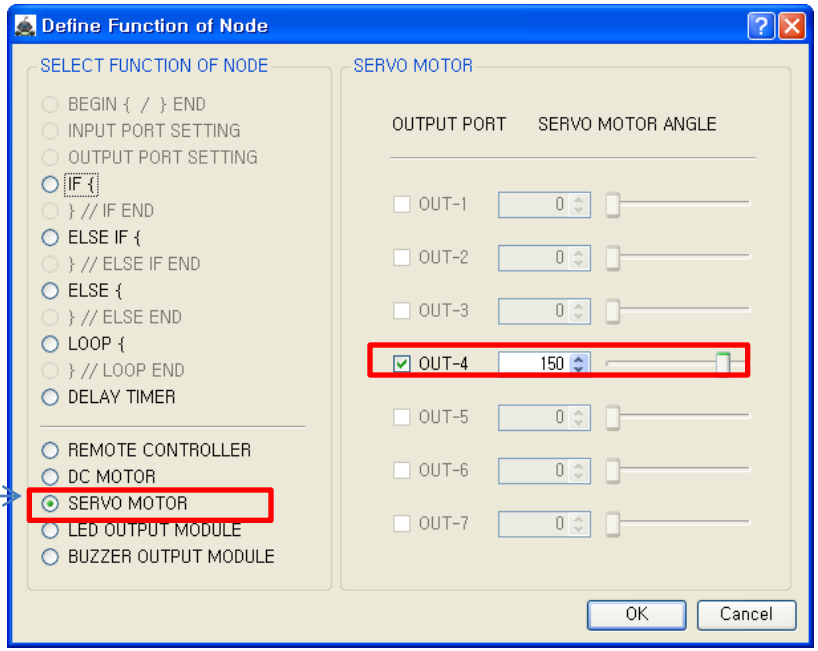
This make turning the front wheels to the right 60 degree.

(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)





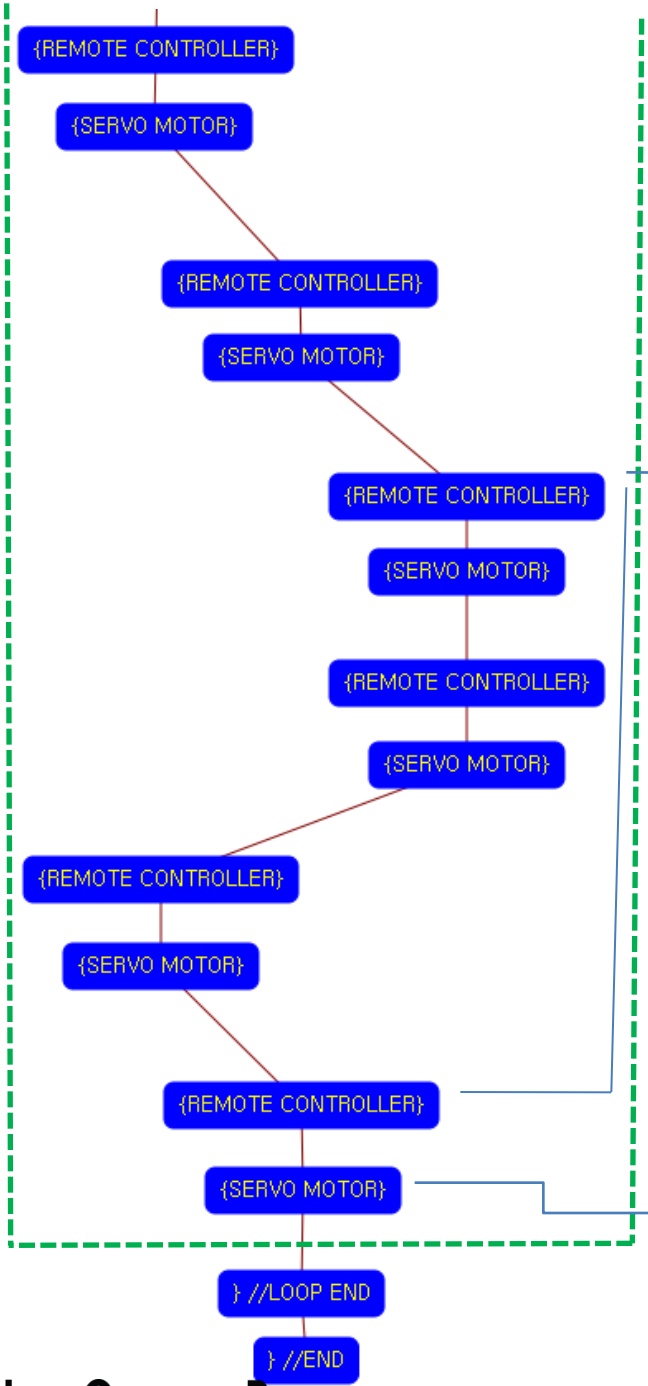
Set the “F4 ” key of remote controller.

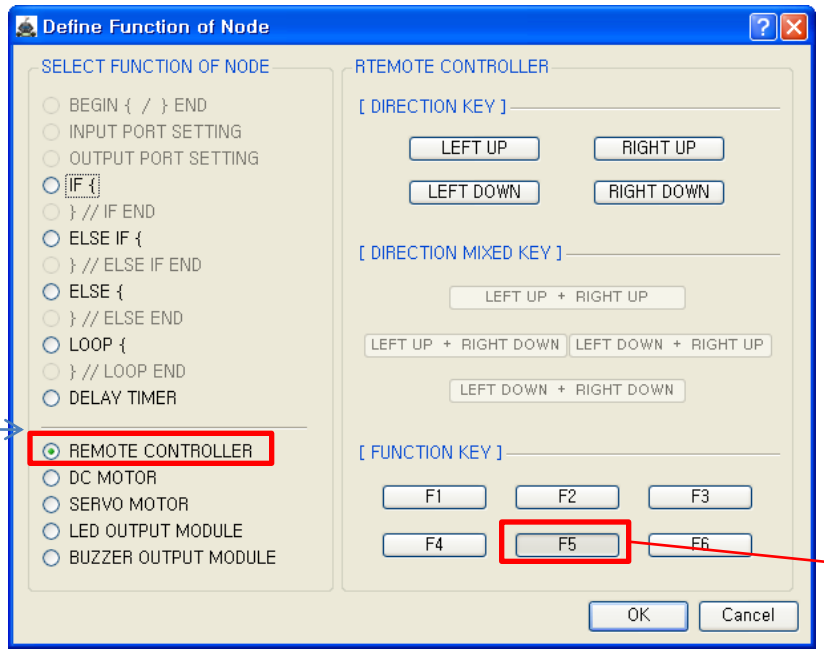


If the “F1” key is pressed, the servo motor(OUT-4) sets to the 150 degree.

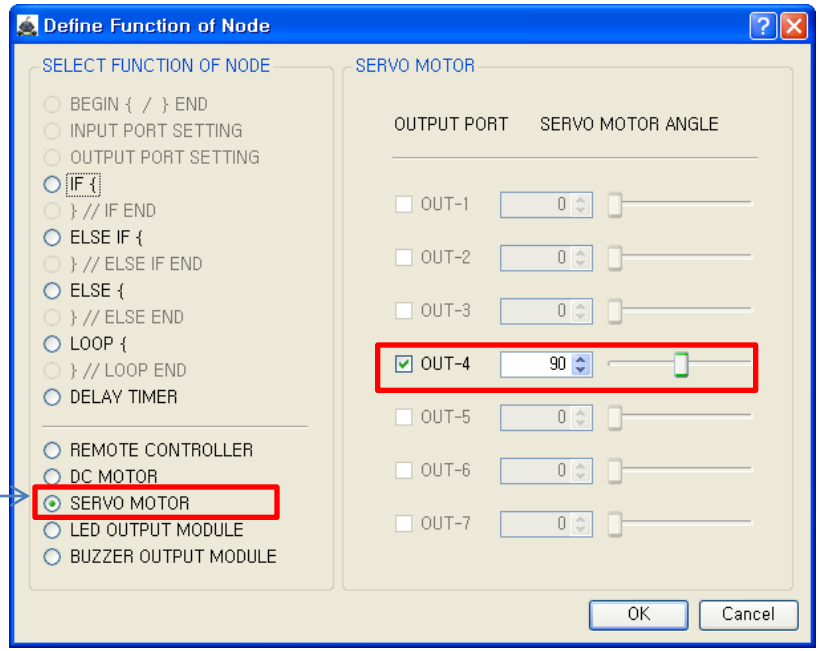
This make turning the front wheels to the left 60 degree.

(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)





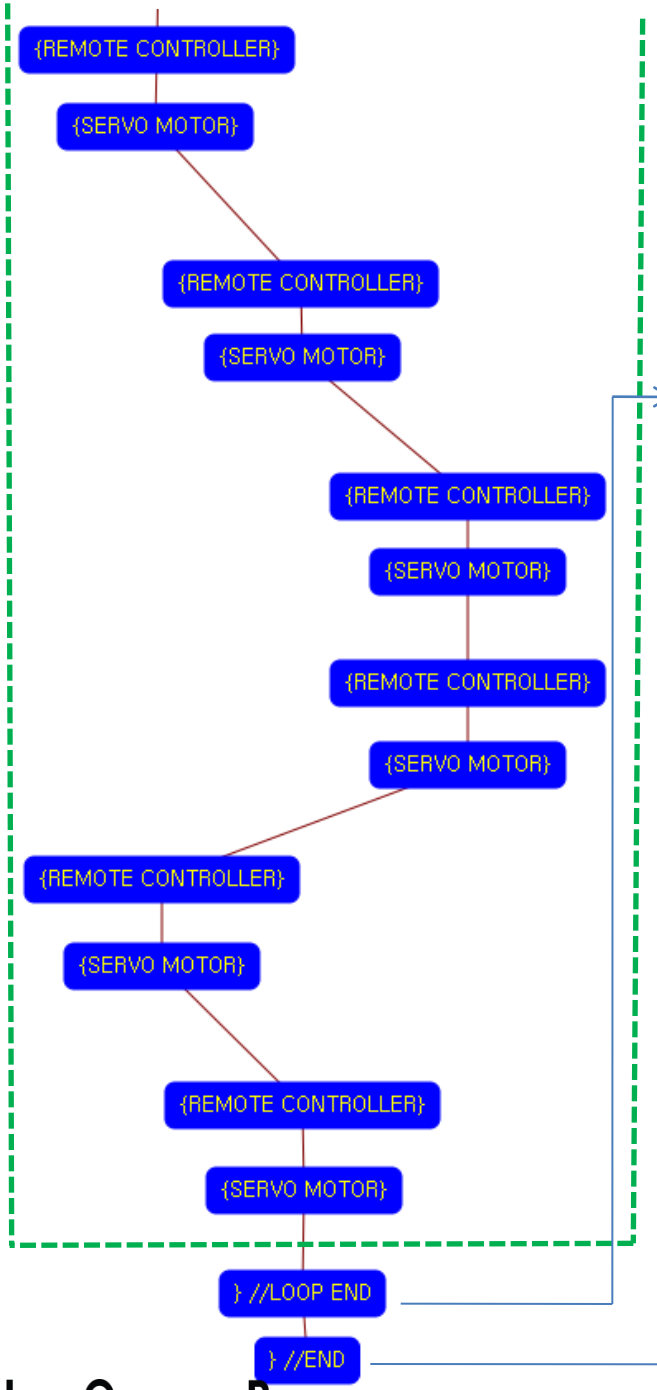
Set the “F5 ” key of remote controller.

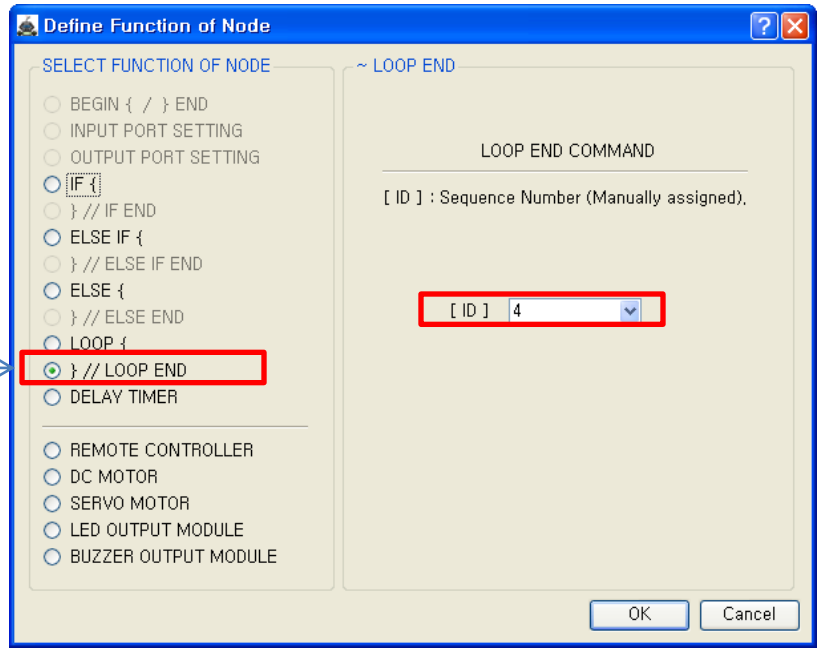


If the “F5” key is pressed, the servo motor(OUT-4) sets to the 90 degree.

This make turning the front wheels to the front side.

(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)

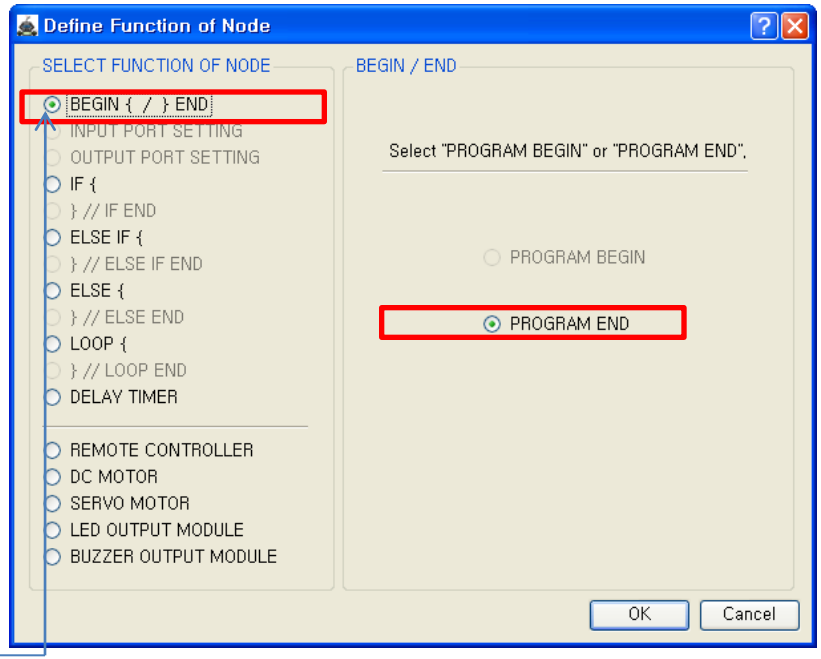




The end point of “LOOP {“ repetition command.

You have to assigned the ID of paired “LOOP {“ repetition command.

(It is necessary to know that which “LOOP {” among the many “LOOP {” repetition commands in program.



This means that program ends hear.

You have to place this node at the end of program.

“PROGRAM BEGIN” is not active because you already define at the program.

To run the robot, it is necessary to download the program into the robot.
(Refer to download manual)