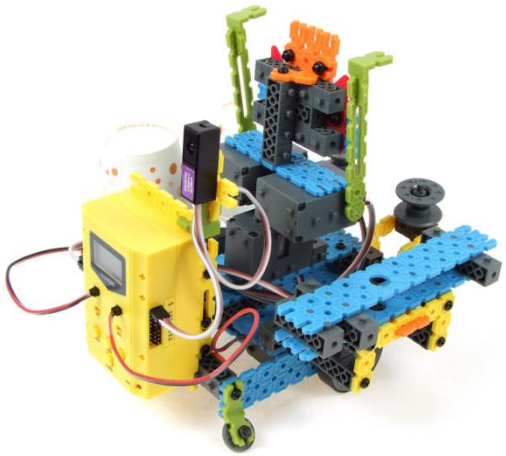
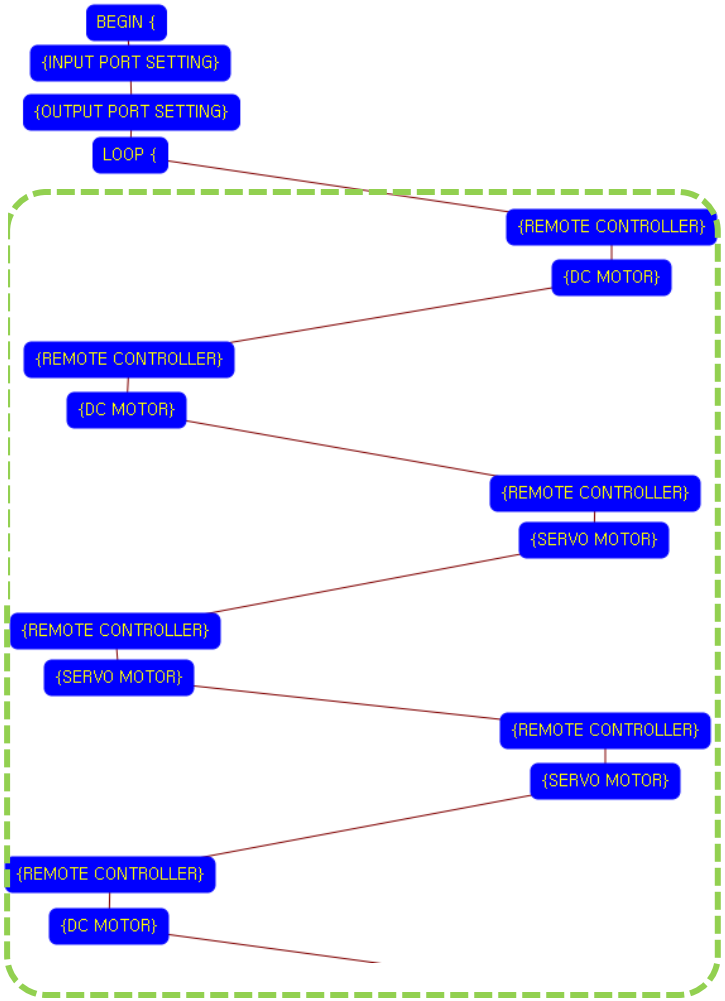
EQ-ROBO Programming : Drum robot



Input: Remote signal receiver
Output: DC motor, Servo motor
Work: Driving, Turn waist
and hit the drum.



Program begin

Input port setting

Output port setting

LOOP starting point (Repeat the command)

Case 1
Key of remote controller : LEFT UP
Robot goes forward

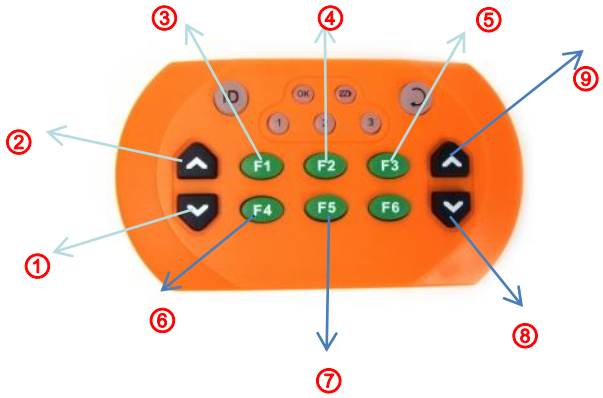
Case 2
Key of remote controller : LEFT DOWN
Robot goes backward

Case 3
Key of remote controller : F1
Turn the waist to left side

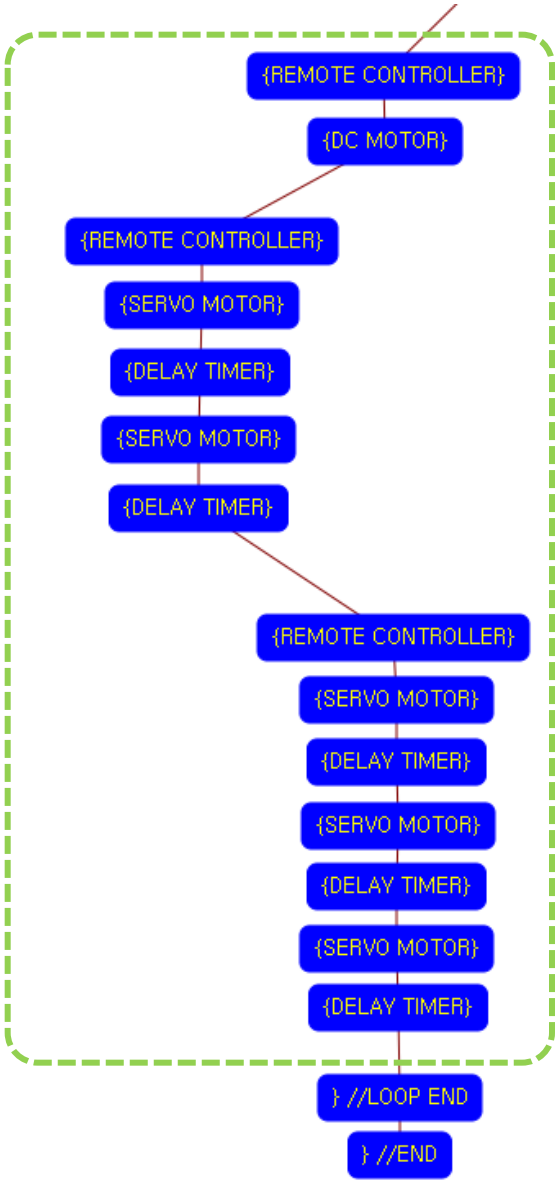
Case 4
Key of remote controller : F2
Set the waist to the center

Case 5
Key of remote controller : F3
Turn the waist to right side

Case 6
Key of remote controller : RIGHT DOWN
Robot Turns to the right side



①Go backward
②Go forward
③Turn the waist to left side
④Set the waist to the center
⑤Turn the waist to right side
⑥Hit the both drum simultaneously
⑦Hit the drum in sequence
⑧Turn right
⑨Turn left



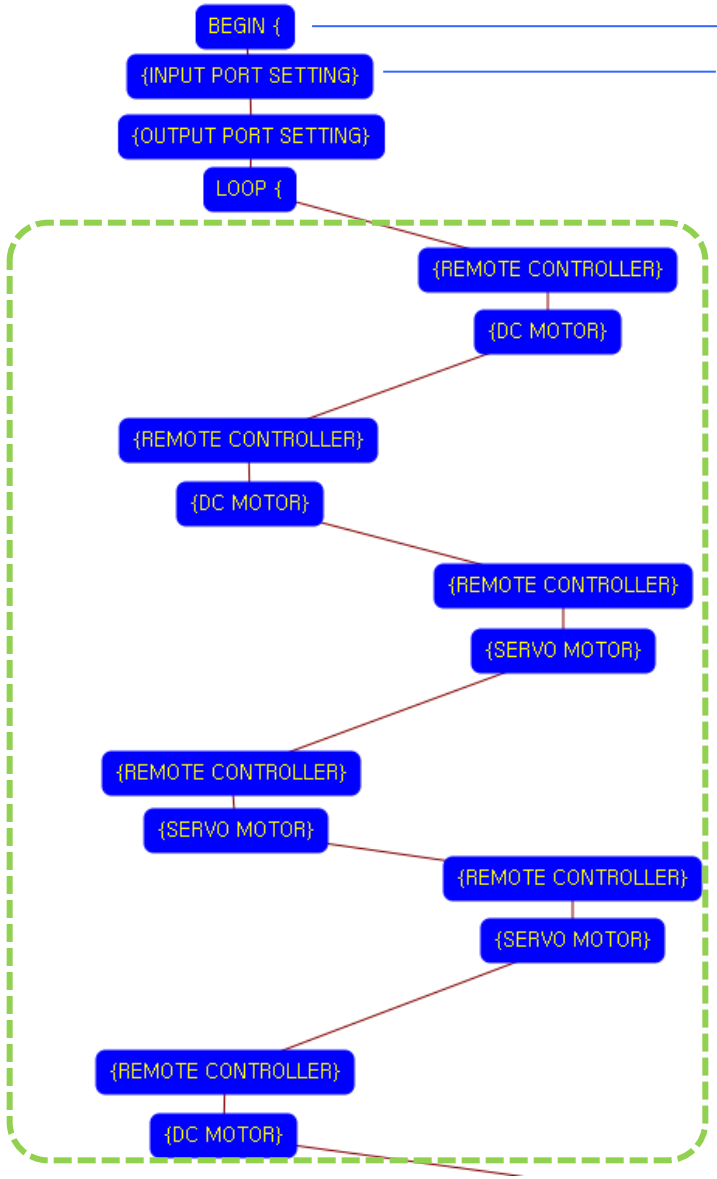
Case 7
Key of remote controller : RIGHT UP
Robot Turns to the left side

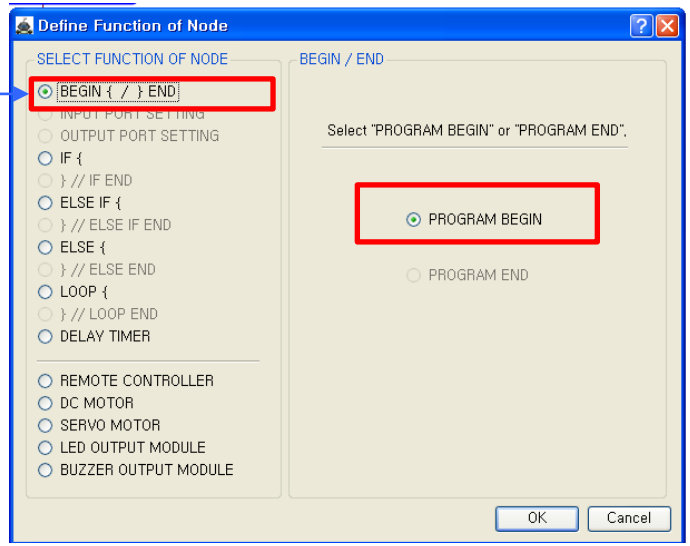
Case 8
Key of remote controller : F4
Robot hits the drum simultaneously

Case 9
Key of remote controller : F5
Robot hits the drum in sequence

LOOP ending point

Program end

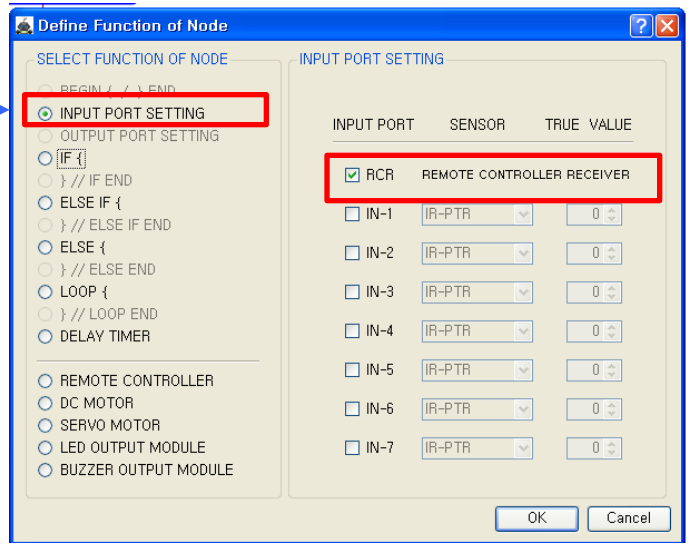




This means that program begins from hear.

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

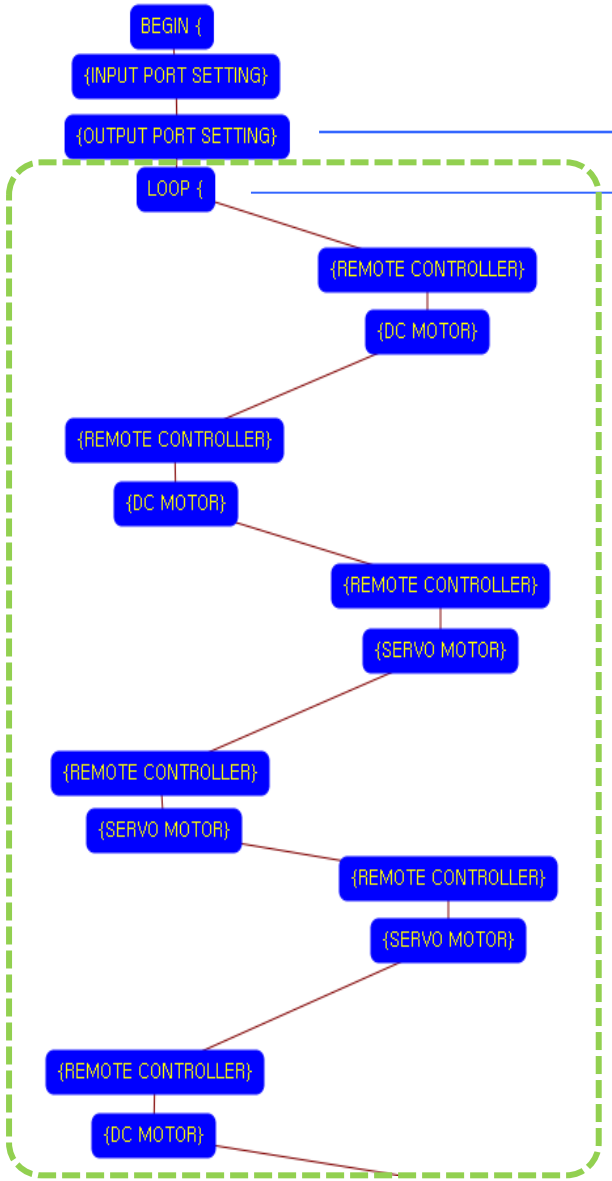
“PROGRAM END” is not active because you did not define “PROGRAM BEGIN” yet.

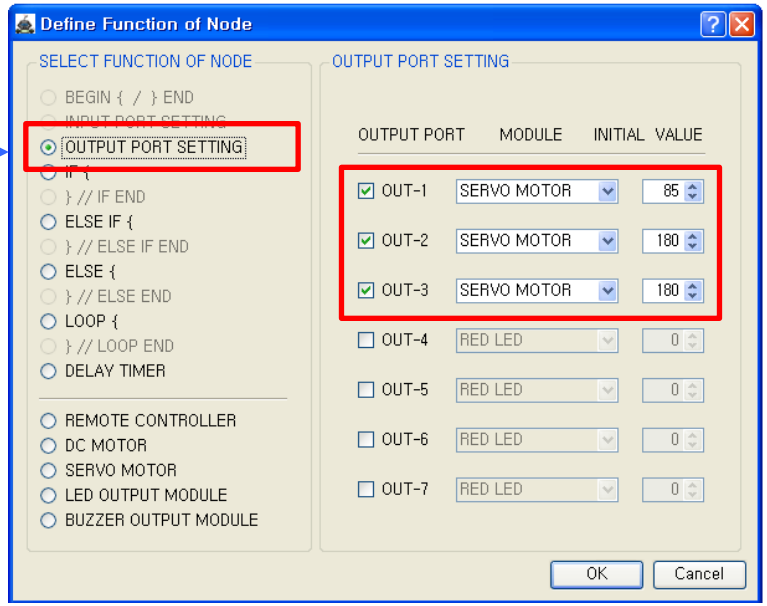


This model use 1 remote control receiver module as input device.

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

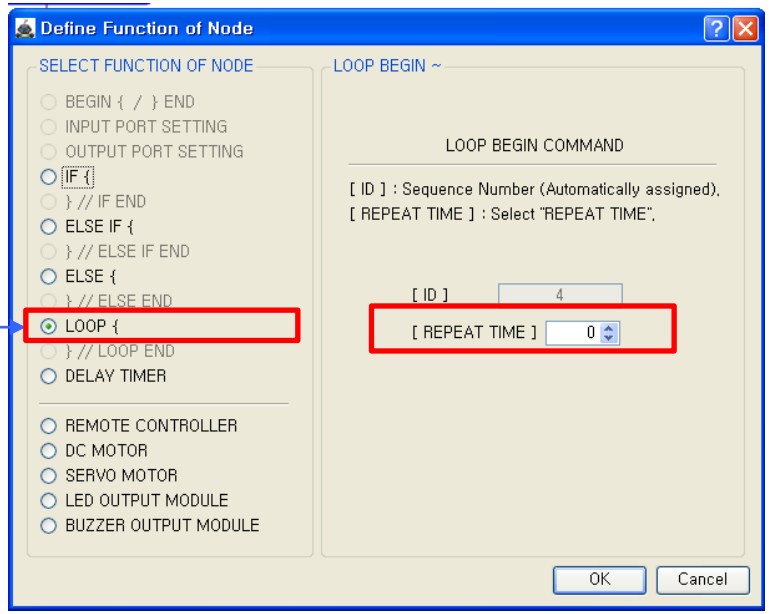
If the real connection of sensors are different to the setting on software, it will make robot to wrong operation.





You have to connect Servo motors to the OUT-1, OUT-2 and OUT-3 output port of main board. The initial values of Servo motors are to be 85, 180 and 180.

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

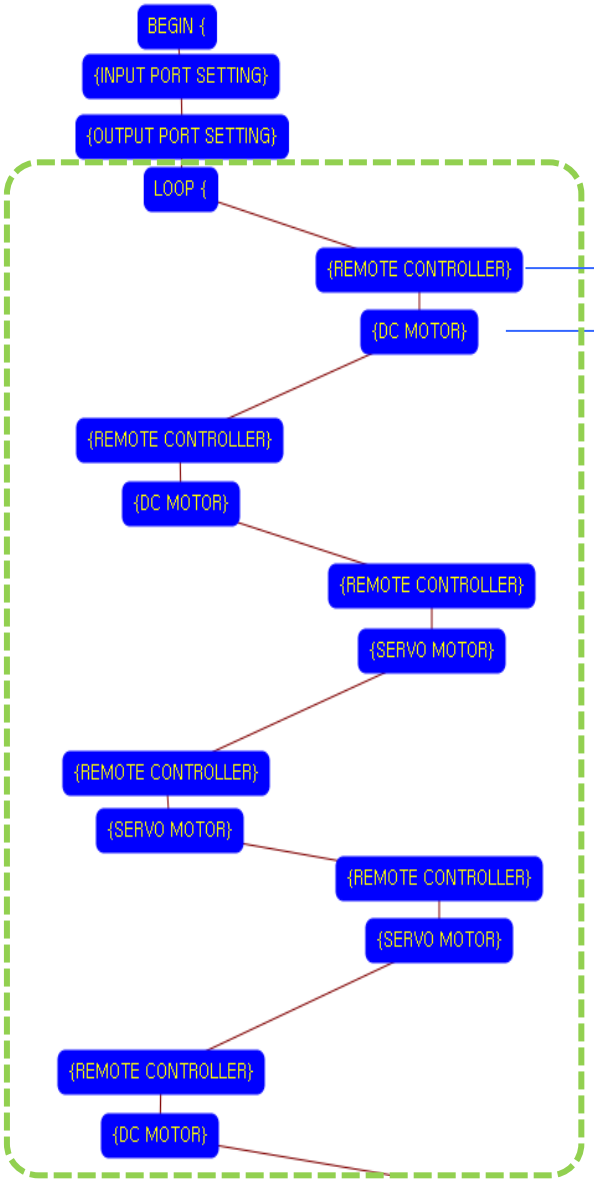


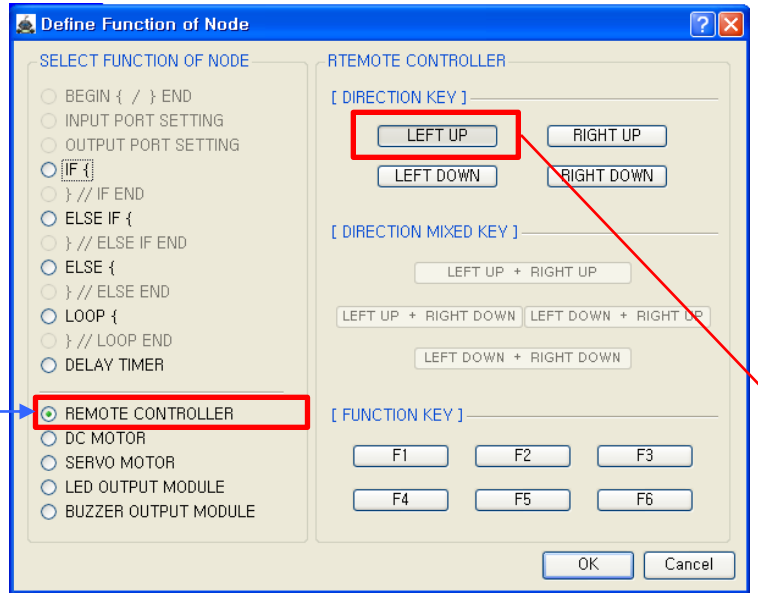
LOOP command is used to repeat the commands.

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

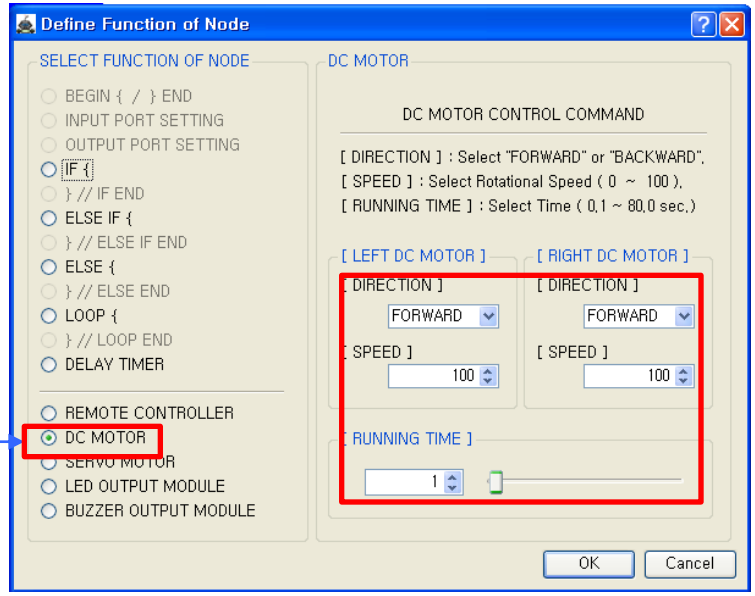
ID is automatically assigned.
You have to set the same ID at “LOOP END”.

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





Set the “LEFT UP ” key of remote controller.

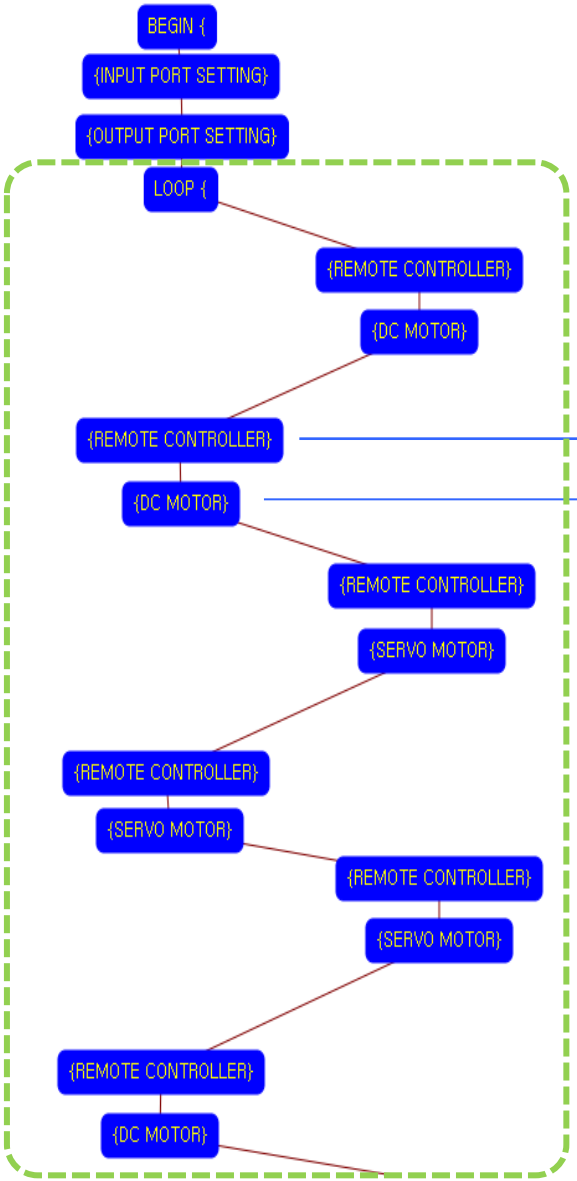


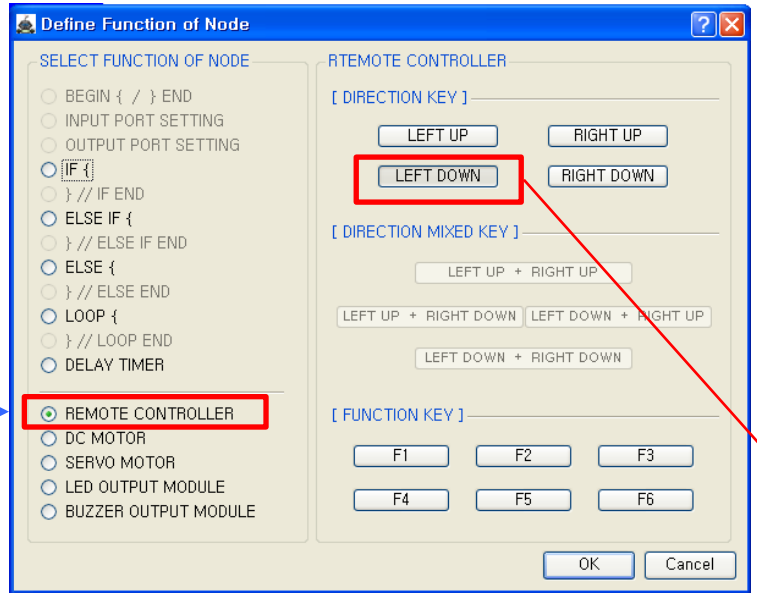
Left DC Motor
- Direction : Forward
- Speed : 100
- Running Time : 1

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

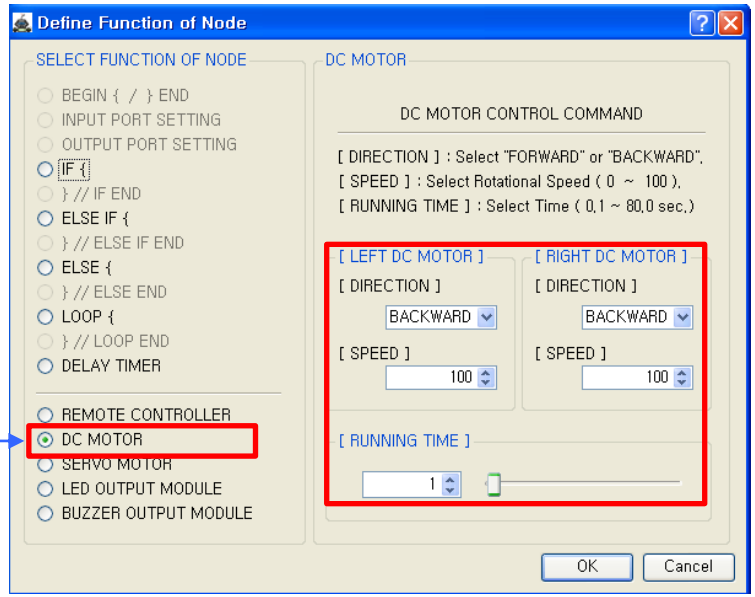
➔Robot goes forward during 0.1 second

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.

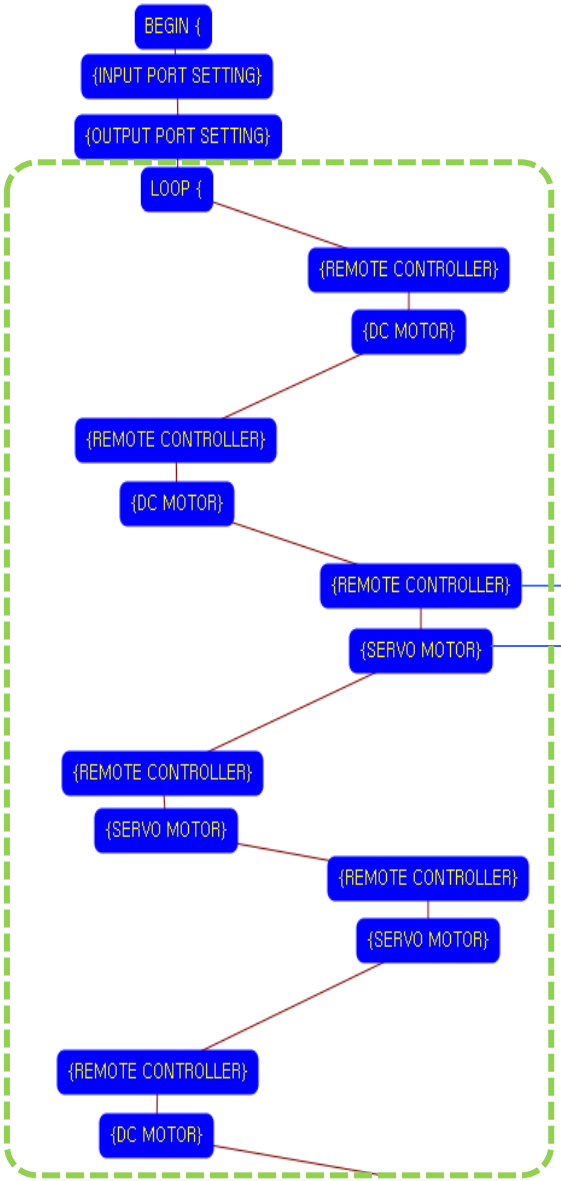


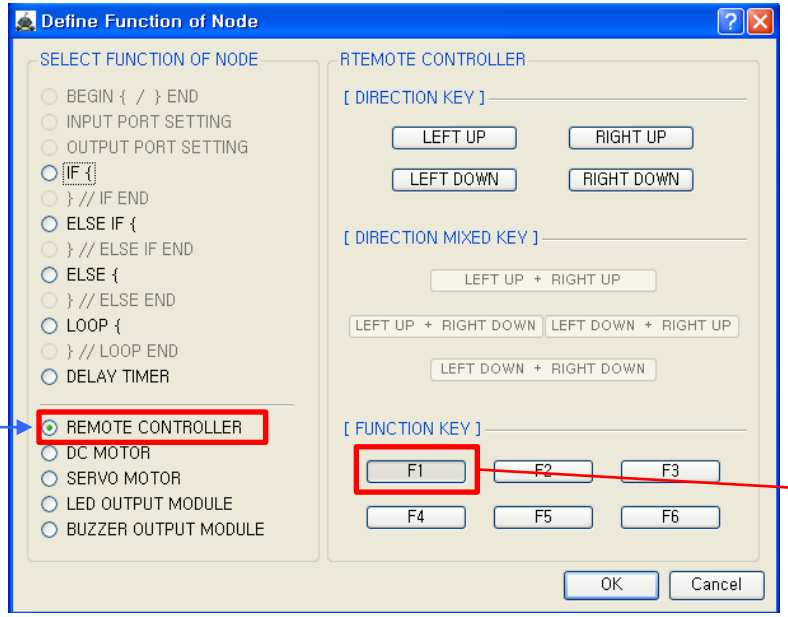
Left DC Motor
- Direction : Backward
- Speed : 100
- Running Time : 1

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

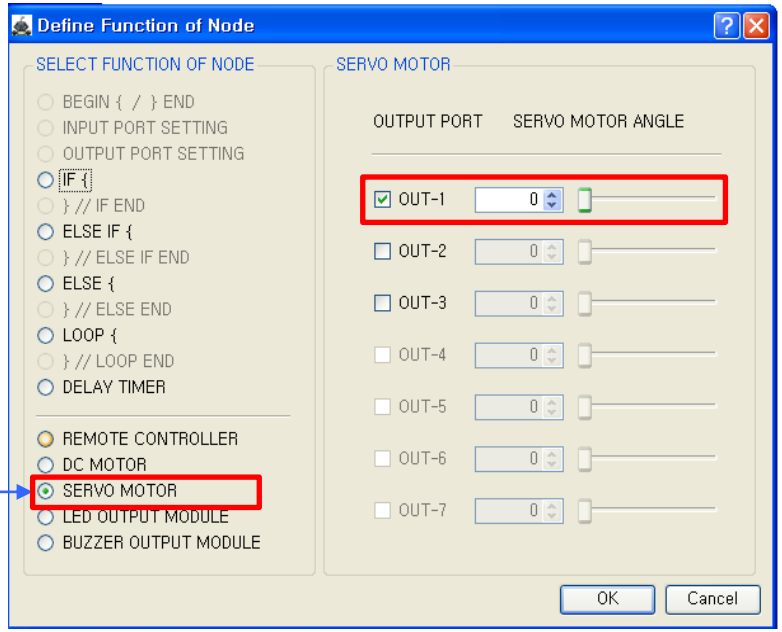
➔Robot goes backward during 0.1 second

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





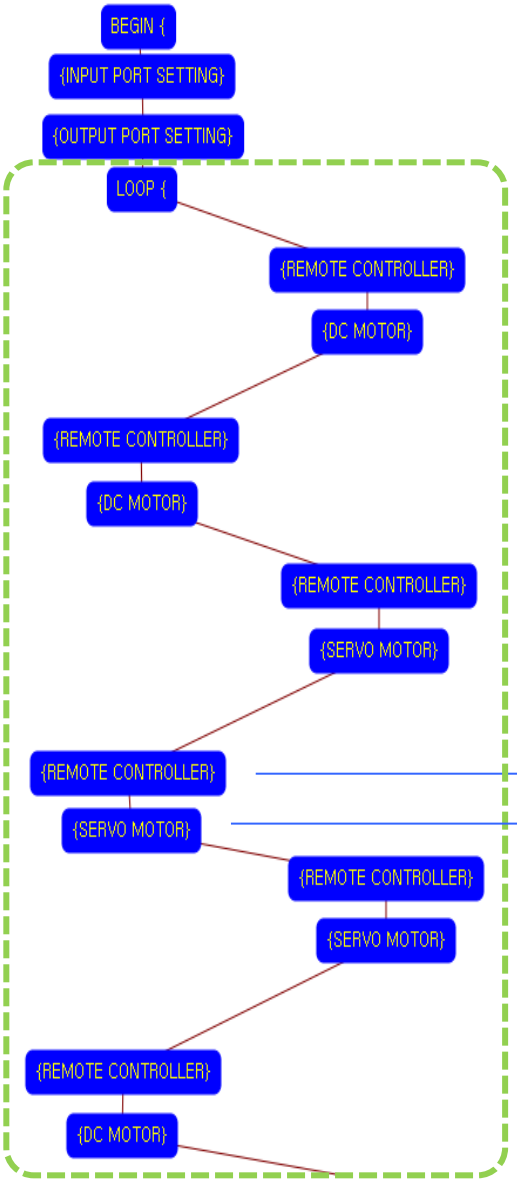
Set the “F1 ” key of remote controller.

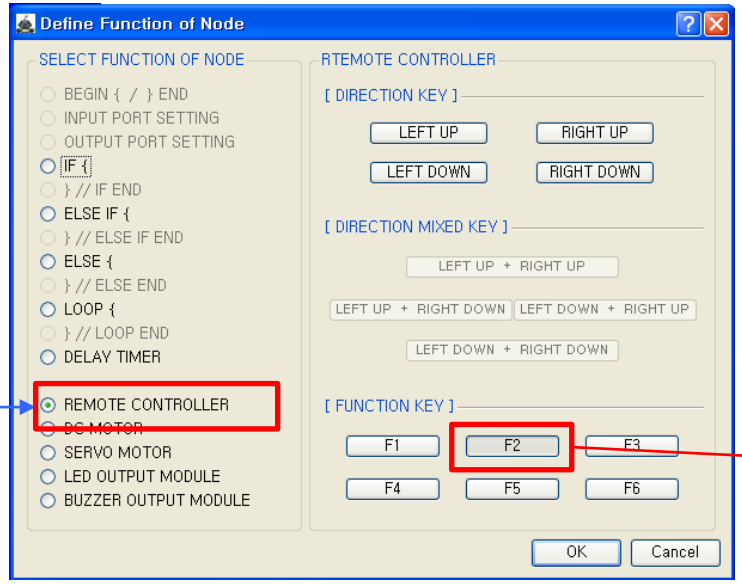


If the “F1” key is pressed, the servo motor(OUT-1) sets to the 0 degree.

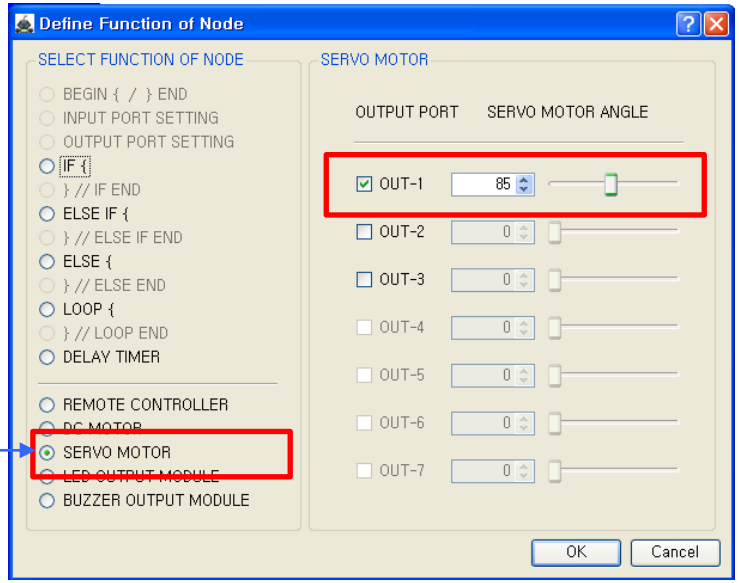
This make robot turn waist to the left side.

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





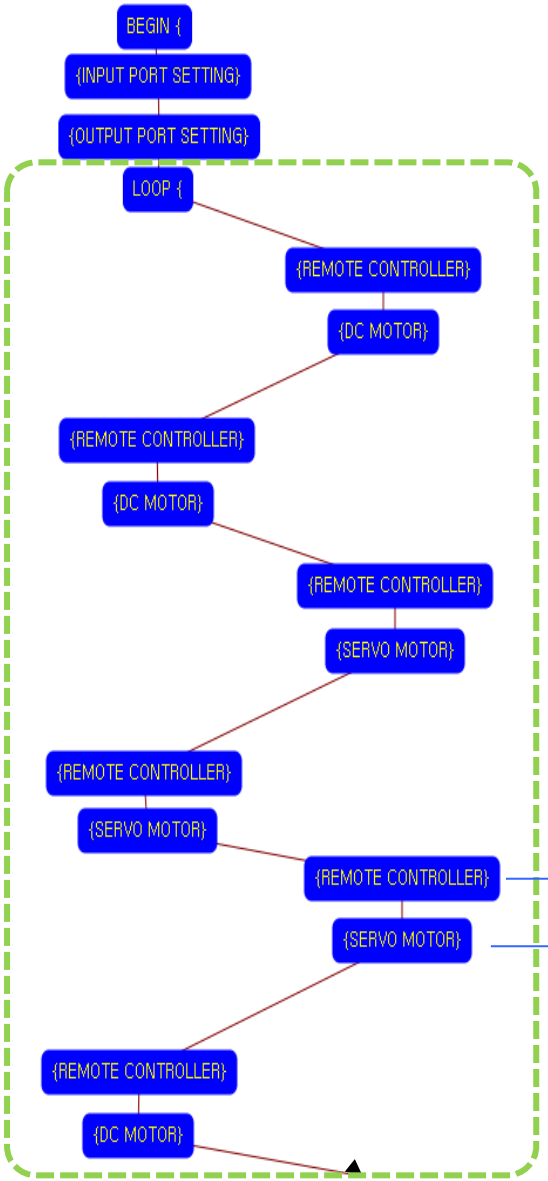
Set the “F2 ” key of remote controller.

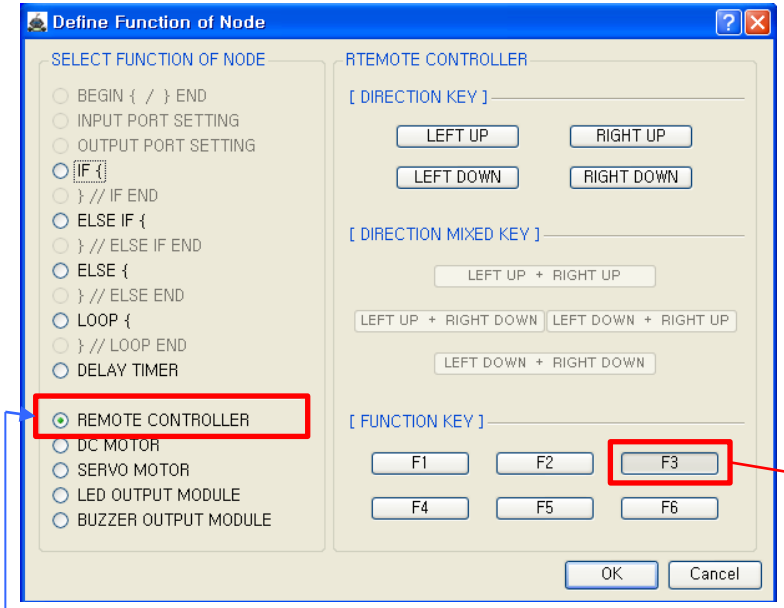


If the “21” key is pressed, the servo motor(OUT-1) sets to the85 degree.

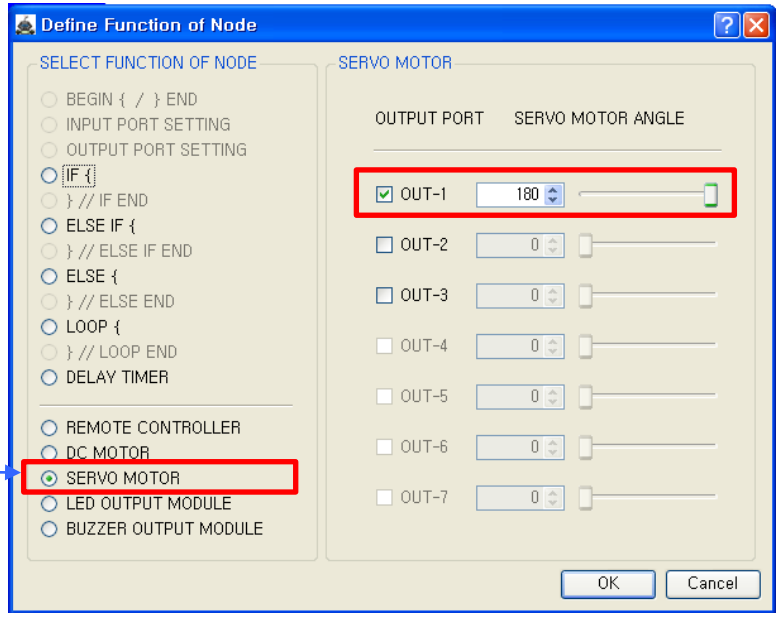
This make robot turn waist to the center.

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





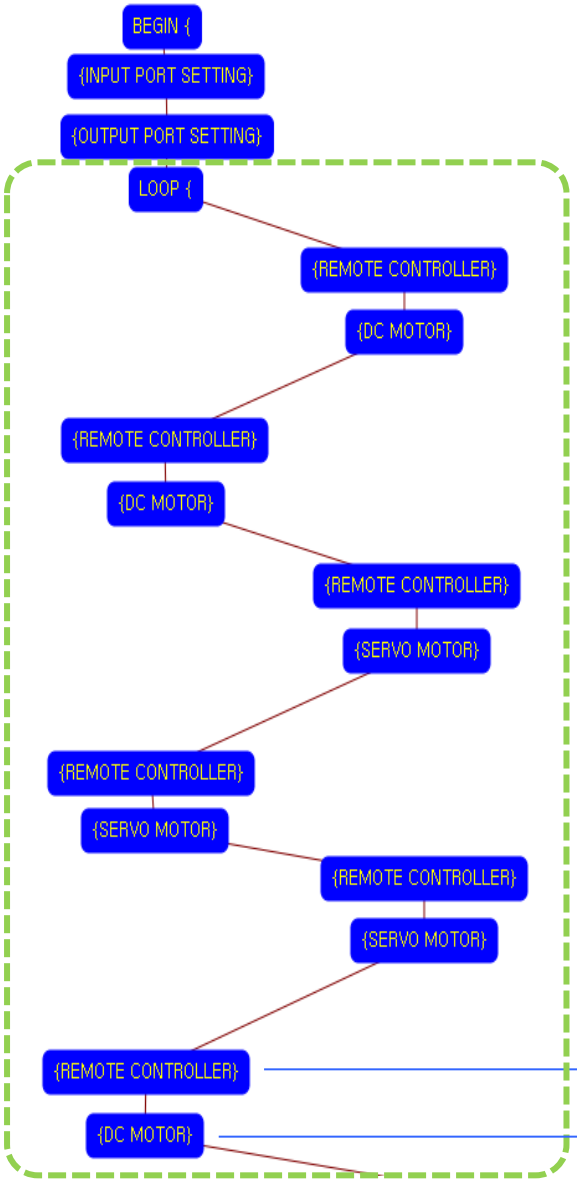
Set the “F3 ” key of remote controller.

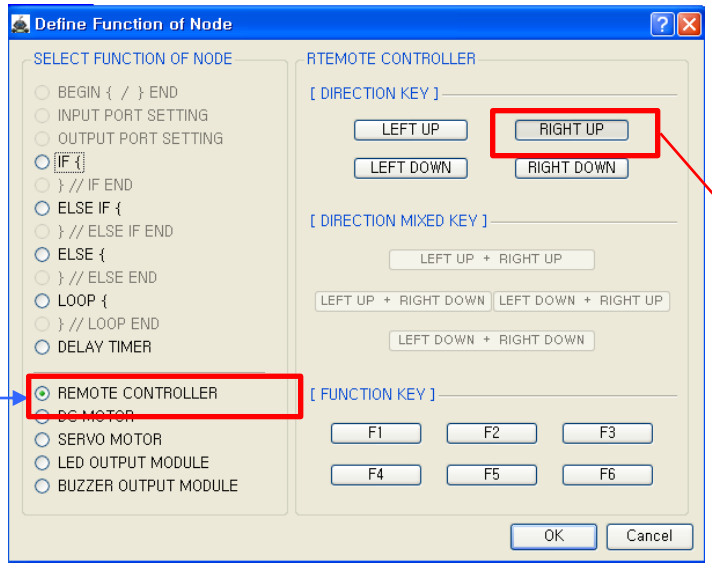


If the “F3” key is pressed, the servo motor(OUT-1) sets to the 180 degree.

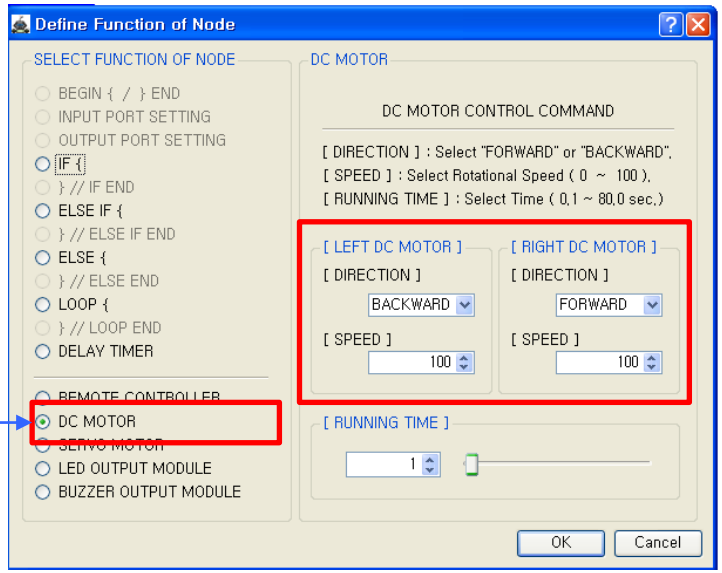
This make robot turn waist to the right side.

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





Set the “RIGHT UP ” key of remote controller.

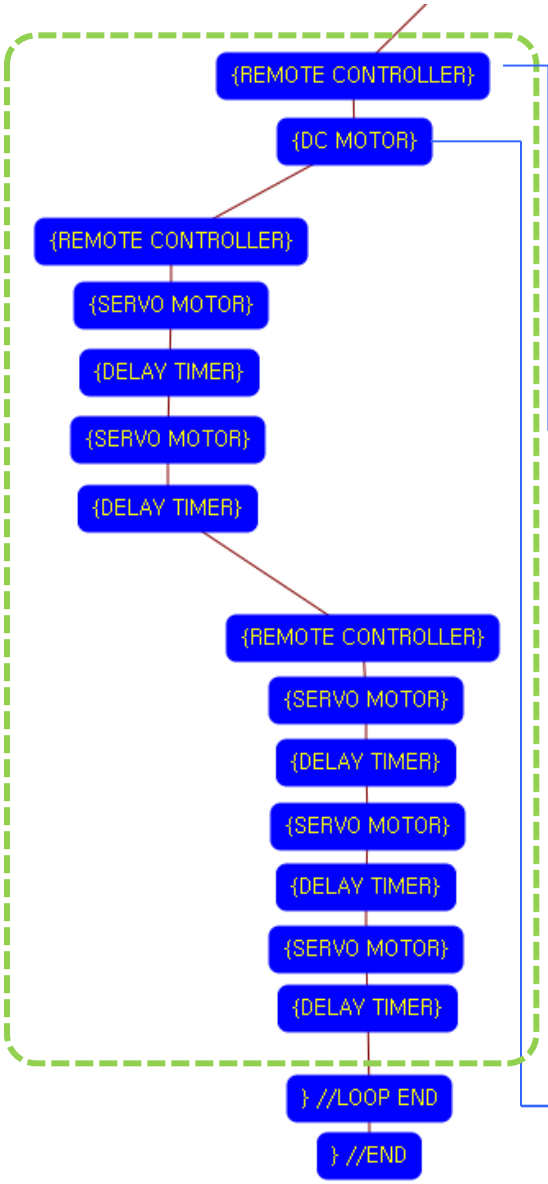


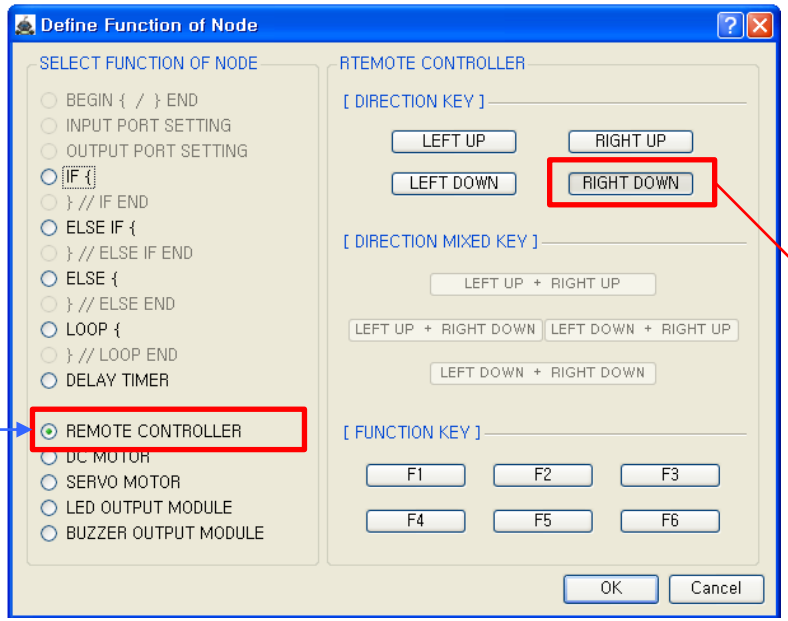
Left DC Motor
- Direction : Backward
- Speed : 100
- Running Time : 1

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

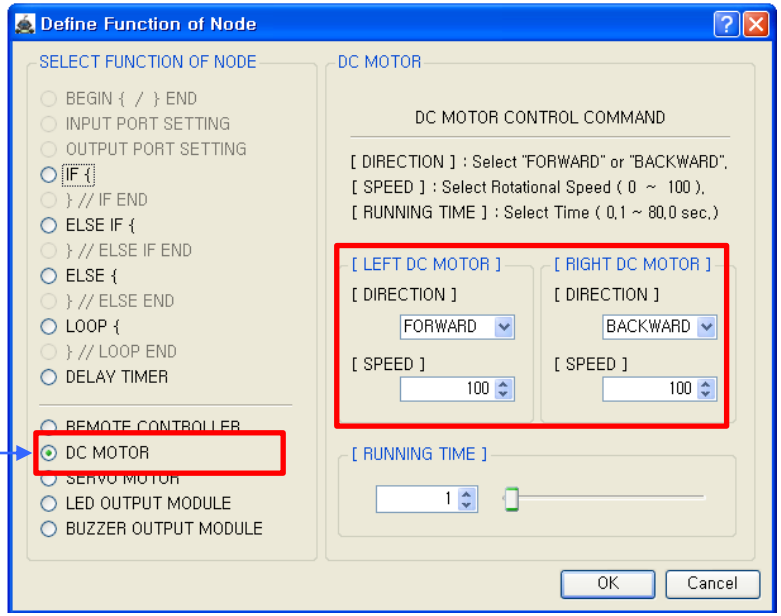
➔Robot turns left side during 0.1 second

Although the setting value of running time is 0.1 seconds, the robot is turning left continuously during the “RIGHT UP” key is pressed.





Set the “RIGHT DOWN ” key of remote controller

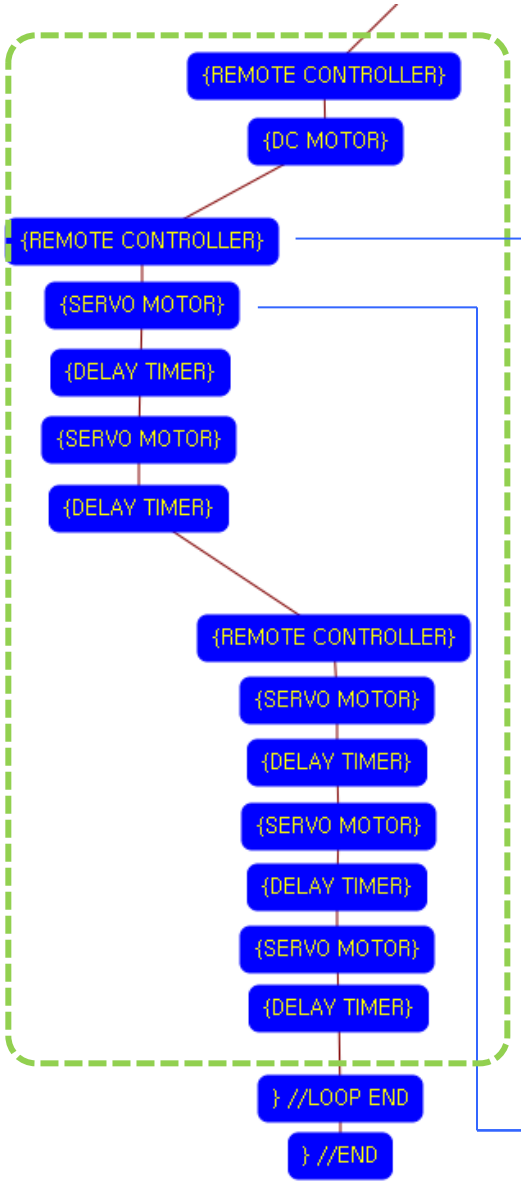


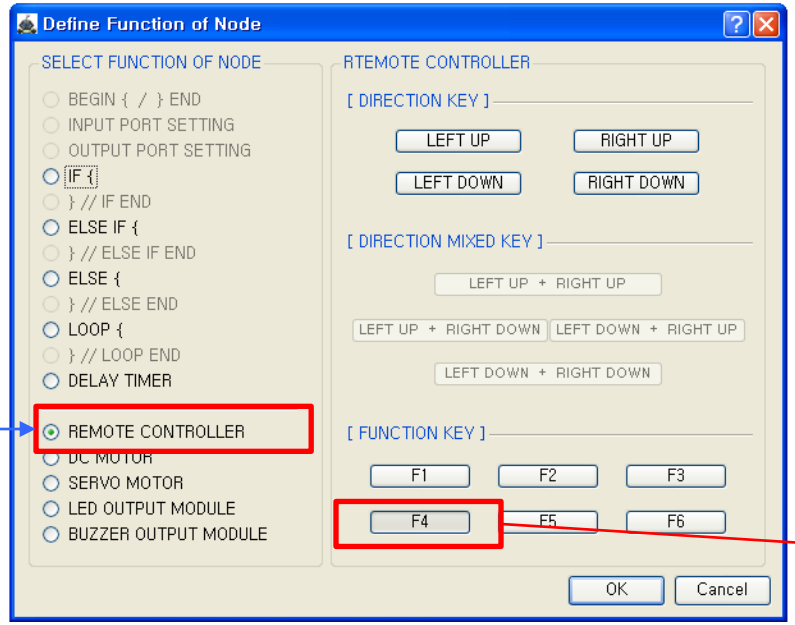
Left DC Motor
- Direction : Forward
- Speed : 100
- Running Time : 1

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

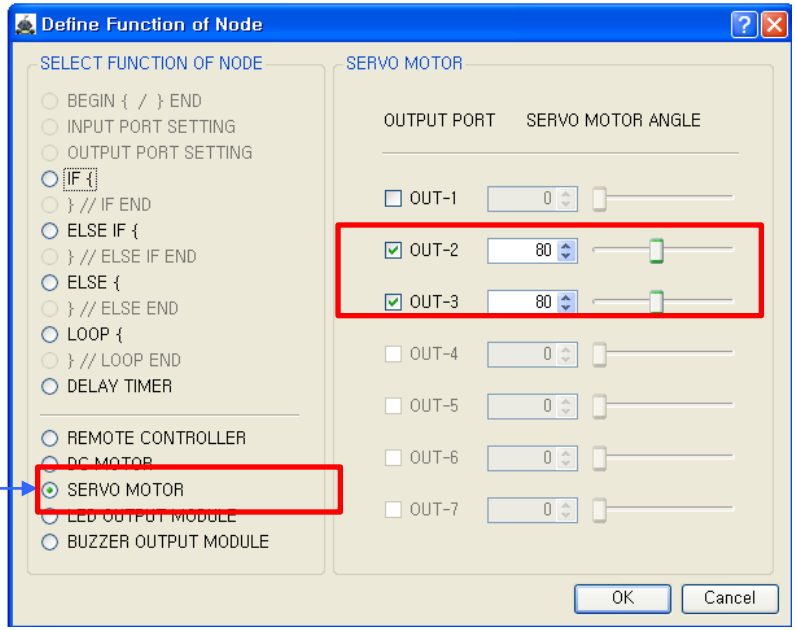
➔Robot turns right side during 0.1 second

Although the setting value of running time is 0.1 seconds, the robot is turning right continuously during the “RIGHT DOWN” key is pressed.





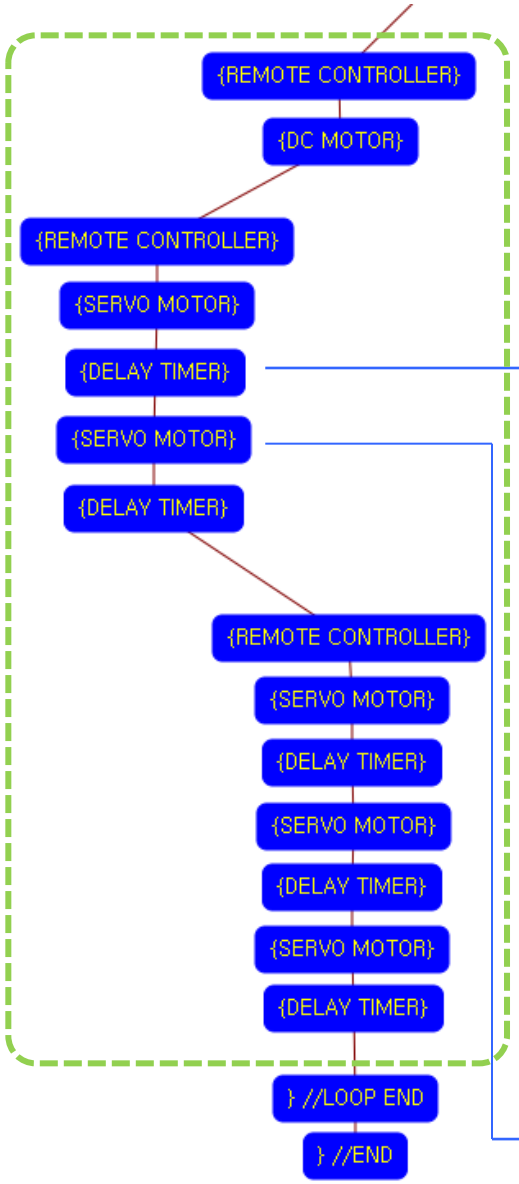
Set the “F4” key of remote controller.

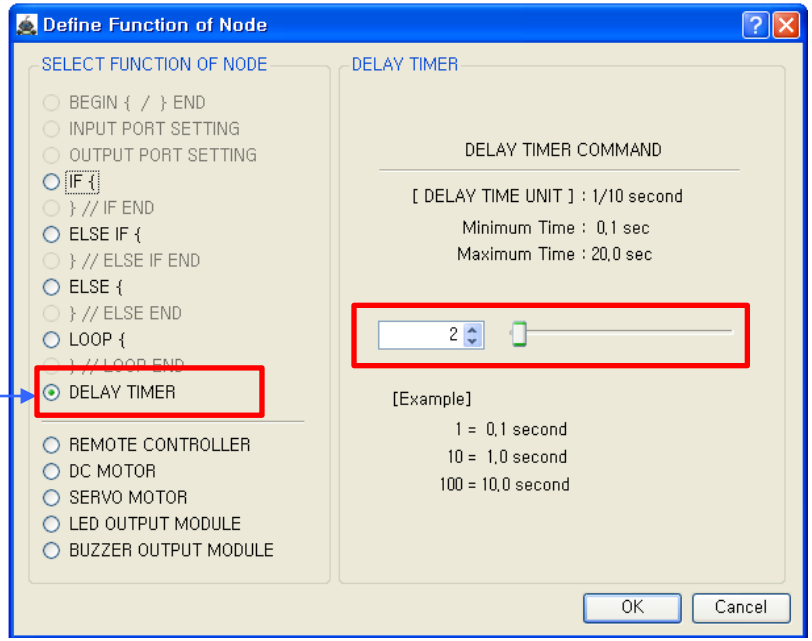


If the “F4” key is pressed, servo motors(OUT-2 & OUT-3) are setting to the 80 degree.

This make both hand to move to the down simultaneously.

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



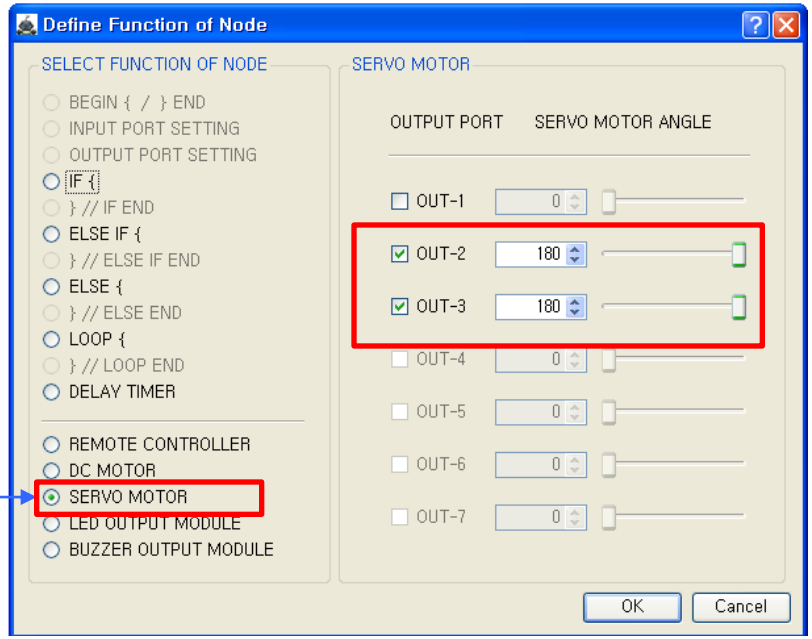


Set the delay time between the previous "{SERVO MOTOR}" and next "{SERVO MOTOR}" commands.

This adds the interval time between 2 commands for servo motor moving.

(Min value : 1
Max value: 200
The real delay time is
0.1 times of the setting value.

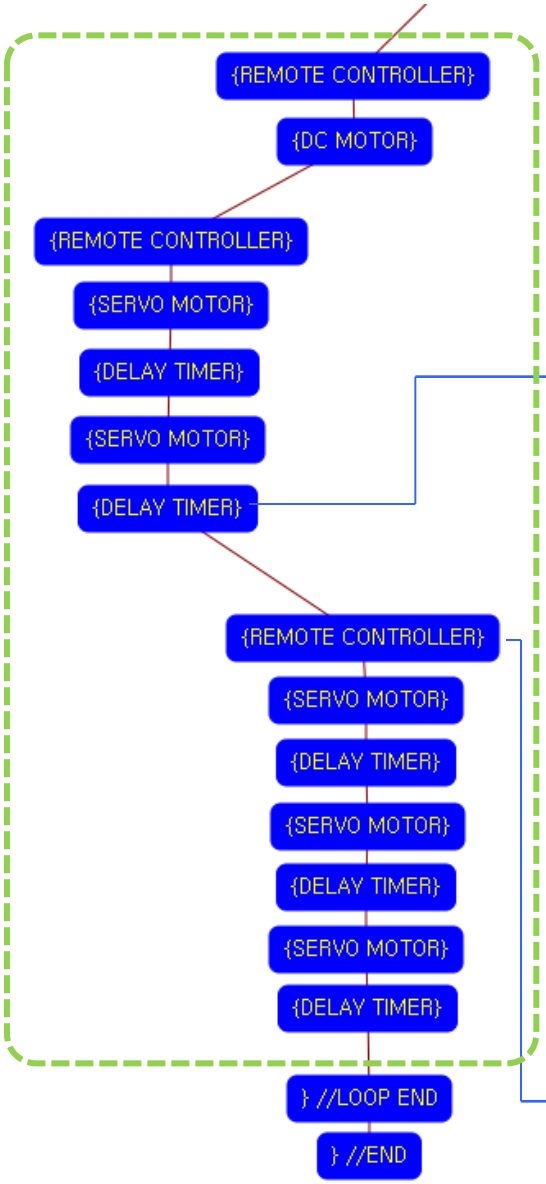
ex) 1 => 0.1 second
2 => 0.2 second

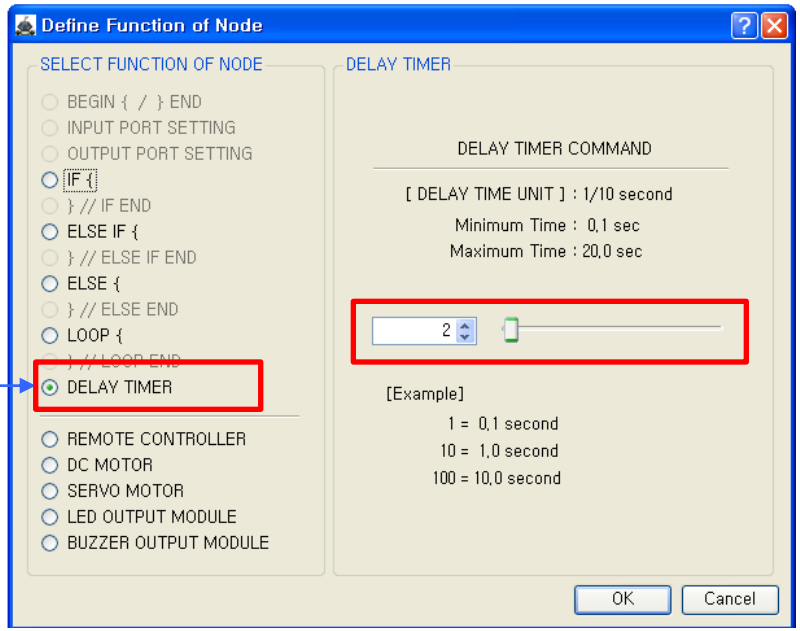


Servo motors(OUT-2 & OUT-3) are setting to the 180 degree.

This make both hand to move to the up simultaneously.

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



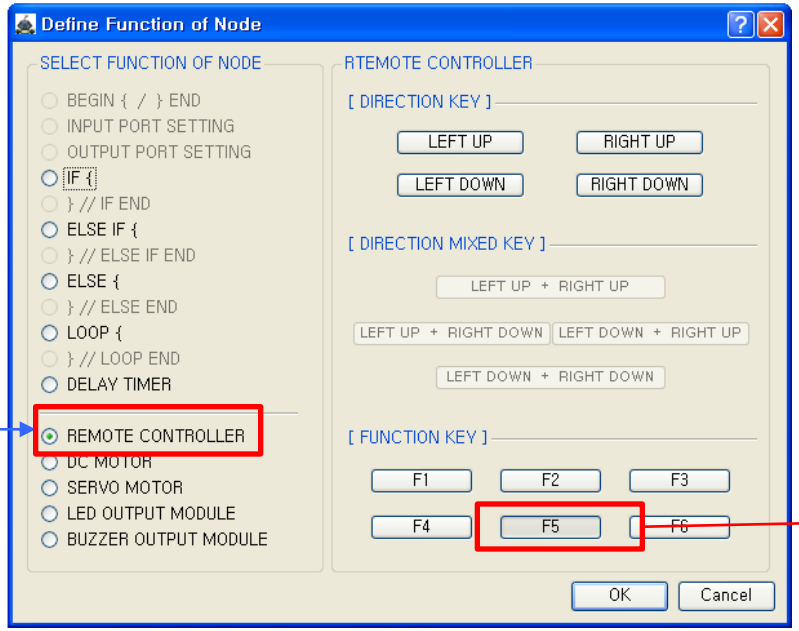


Set the delay time between the previous "{SERVO MOTOR}" and next condition command.

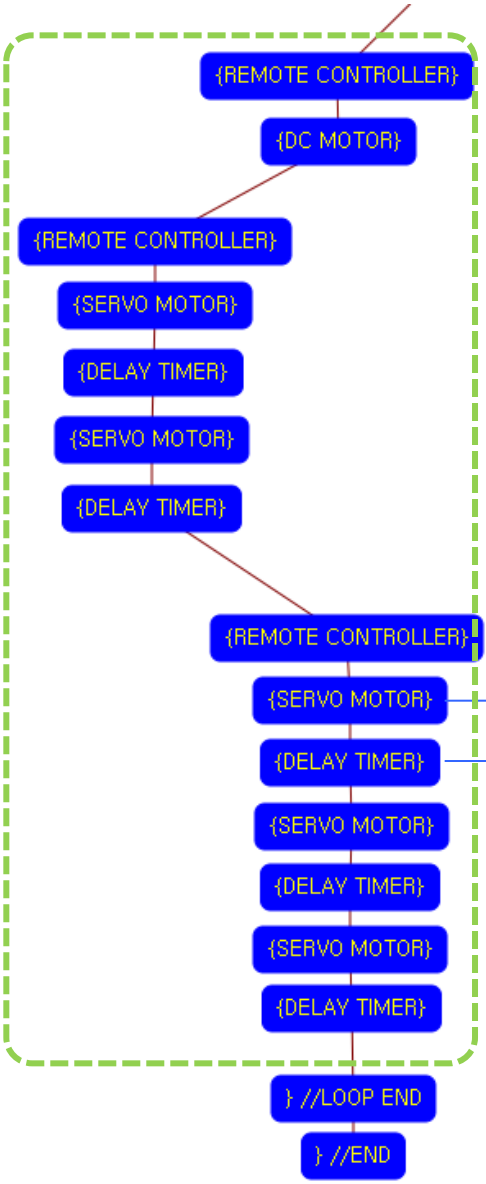
This adds the interval time between 2 commands for previous servo motor moving.

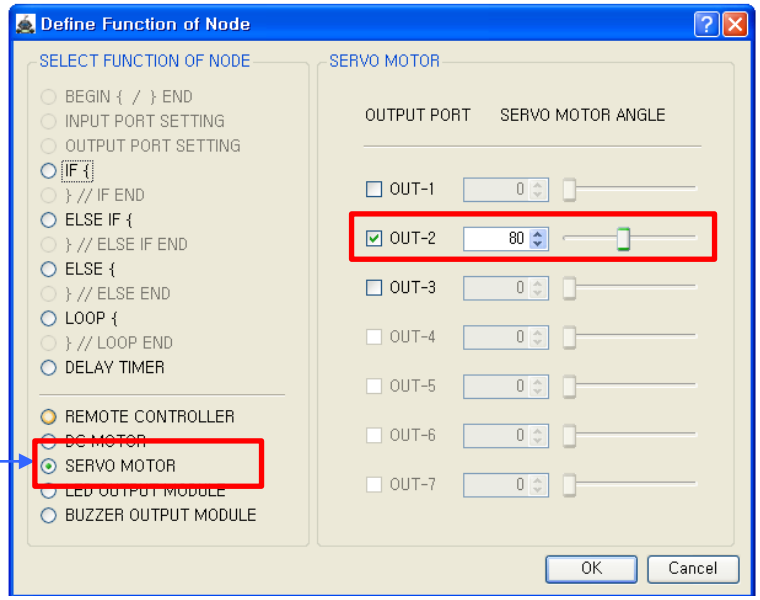
(Min value : 1
Max value: 200
The real delay time is
0.1 times of the setting value.

ex) 1 => 0.1 second
2 => 0.2 second



Set the "F5" key of remote controller.

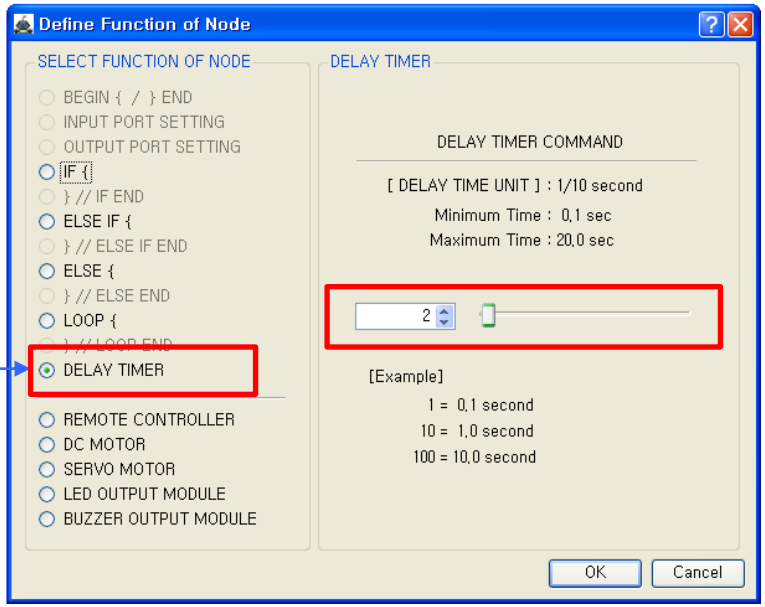




The servo motor(OUT-2) is setting to the 80 degree.

This make only left hand to move down.

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

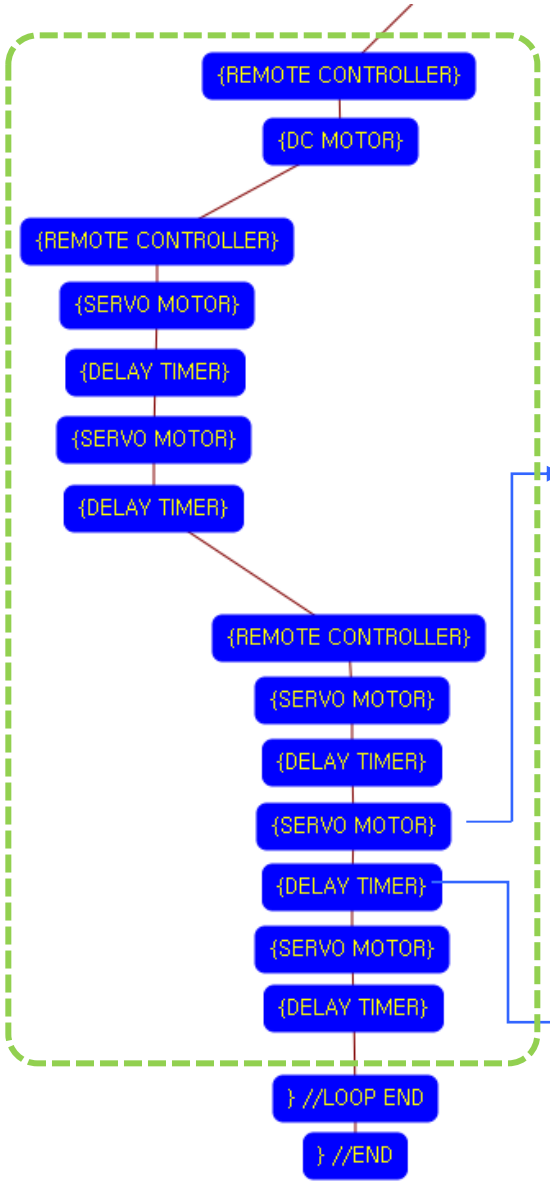


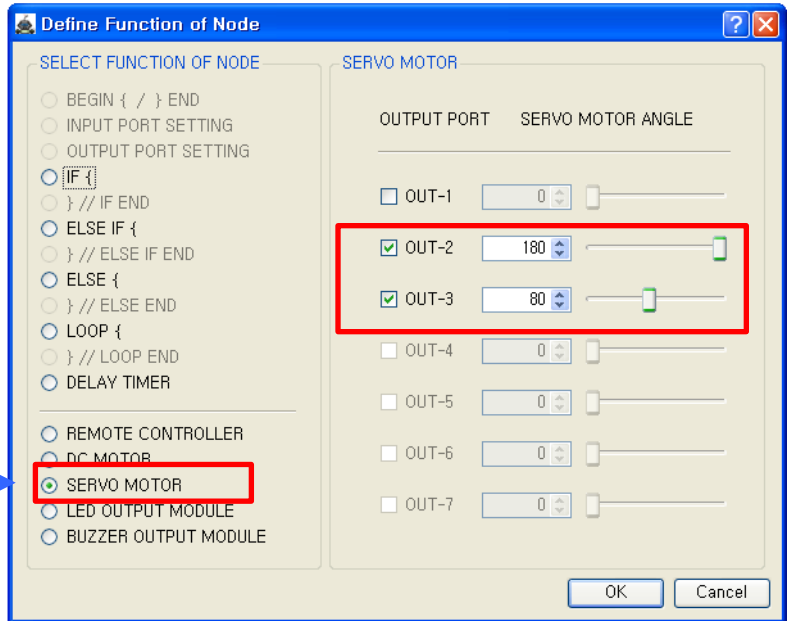
Set the delay time between the previous “{SERVO MOTOR}” and next “{SERVO MOTOR}” commands.

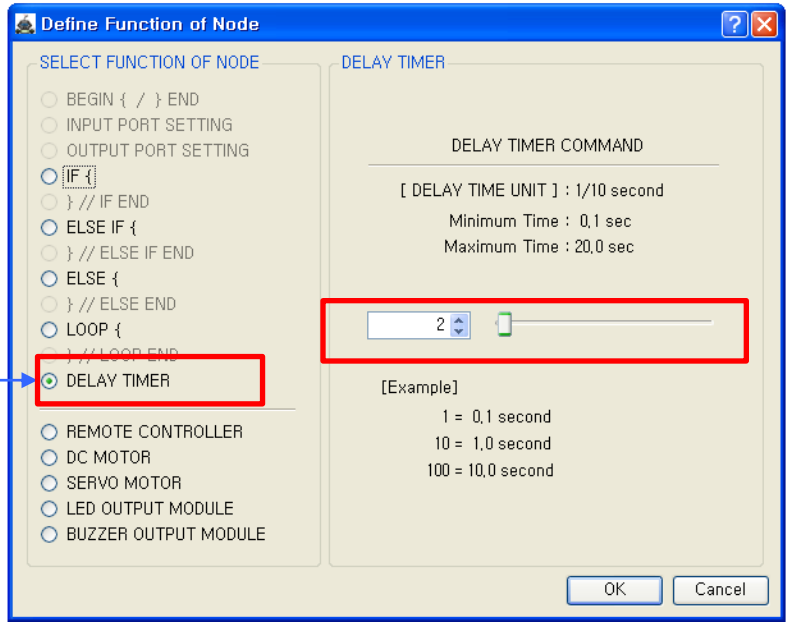
This adds the interval time between 2 commands for servo motor moving.

(Min value : 1
Max value: 200
The real delay time is
0.1 times of the setting value.

ex) 1 => 0.1 second
2 => 0.2 second







Servo motors(OUT-2 & OUT-3) are setting to the 180 & 80 degree.

This make left hand to move up and right hand to move down.

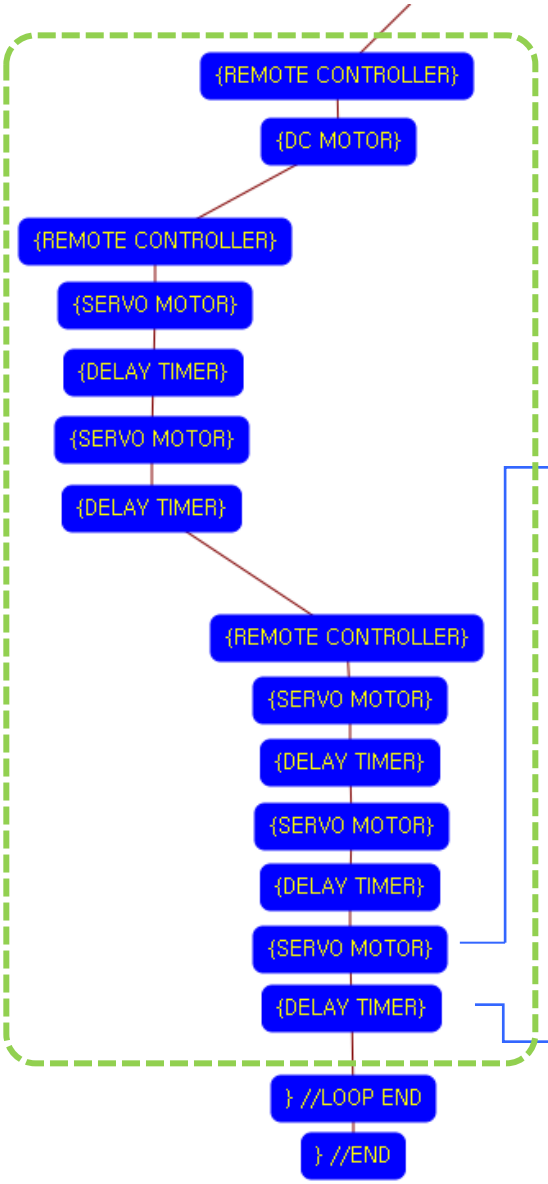
(If the servo motor assembly is different with the assembly manual, the servo motor operation is different also)

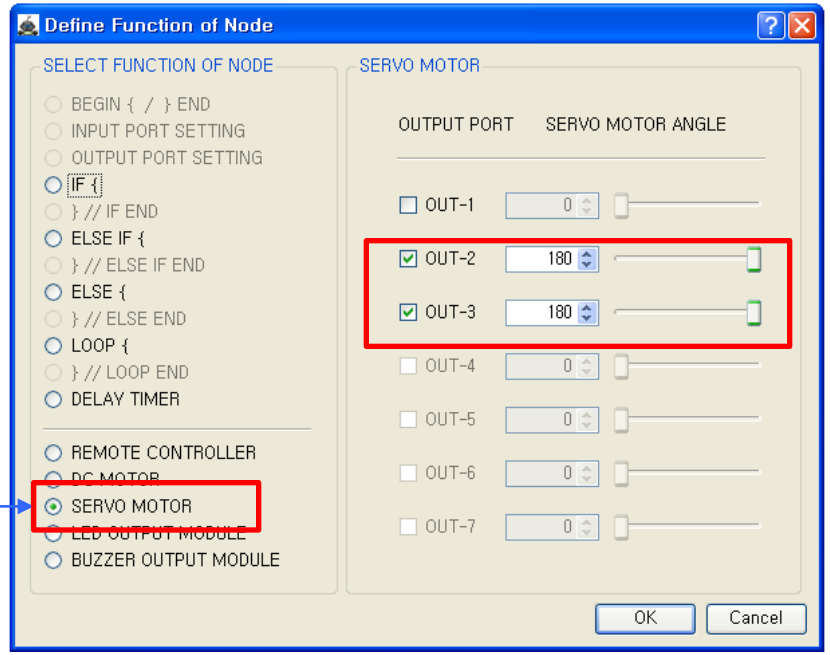
Set the delay time between the previous “{SERVO MOTOR}” and next “{SERVO MOTOR}” commands.

This adds the interval time between 2 commands for servo motor moving.

(Min value : 1
Max value: 200
The real delay time is
0.1 times of the setting value.

ex) 1 => 0.1 second
2 => 0.2 second

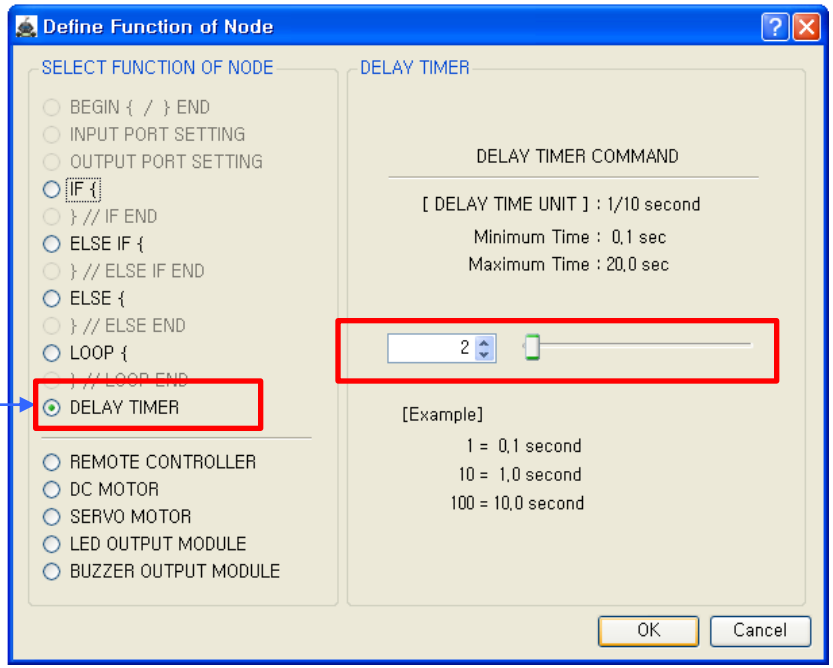




Servo motors(OUT-2 & OUT-3) are setting to the 180 & 180 degree.

This make both hands to move up.

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

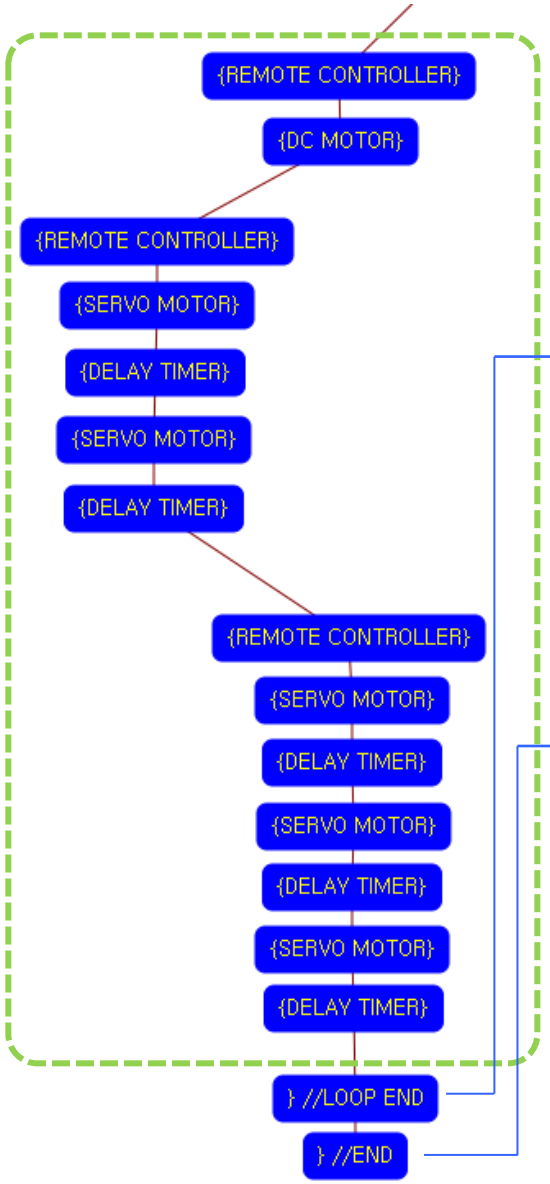


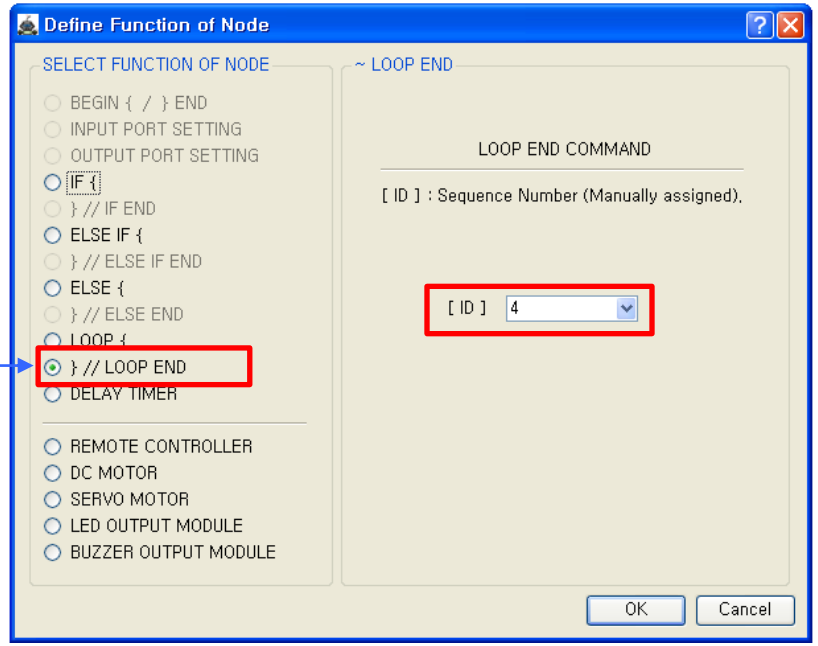
Set the delay time between the previous “{SERVO MOTOR}” and next condition command.

This adds the interval time between 2 commands for previous servo motor moving.

(Min value : 1
Max value: 200
The real delay time is
0.1 times of the setting value.

ex) 1 => 0.1 second
2 => 0.2 second

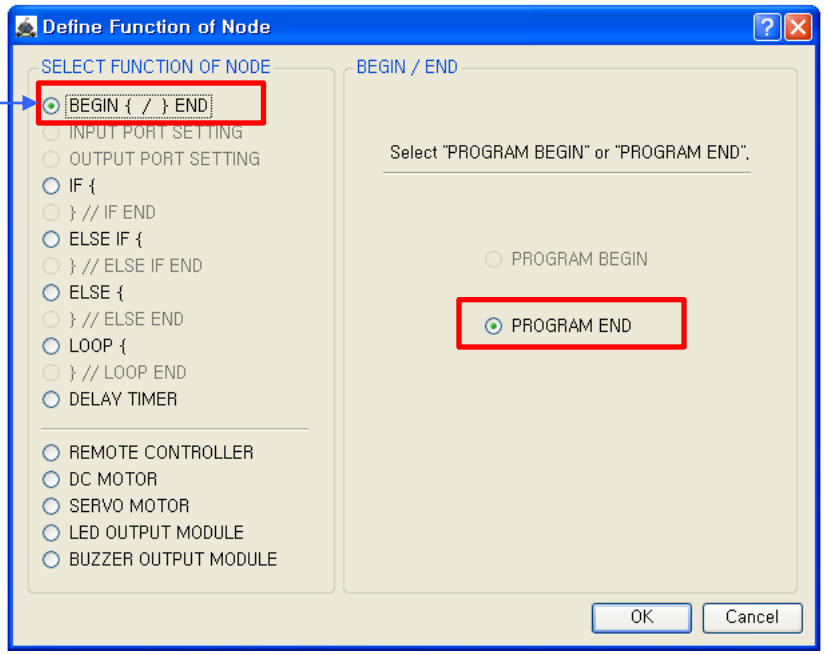




The end point of “LOOP {“ repetition command.

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)