

The background features a light gray circuit board pattern with black traces and circular nodes. A solid dark gray horizontal band runs across the middle of the image, serving as a backdrop for the text.

# 107年跑班選修發表

## 創意機器人

# 課程介紹

- 創意機器人選修主要的課程是學習用伺服馬達及其配件組裝成一個能夠完成某些特定動作的機器人裝置



# 伺服馬達簡介

- 伺服馬達於電壓4.5V至6V的環境運作，分為交流（AC）和直流（DC）兩種，本校的課程使用的是直流伺服馬達，且可旋轉的角度為180度。伺服馬達會依照設計者給予的命令旋轉到指定位置，多個伺服馬達搭配能夠做出更多較複雜的動作。



# 機器人的組裝過程

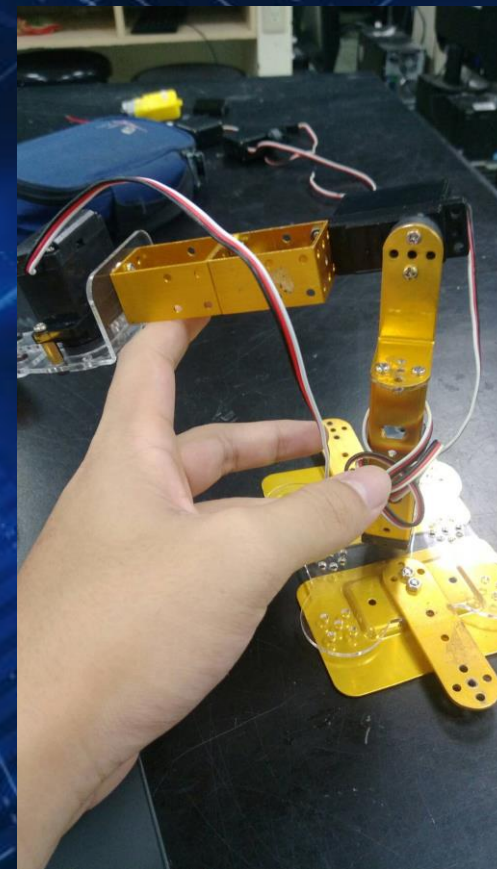
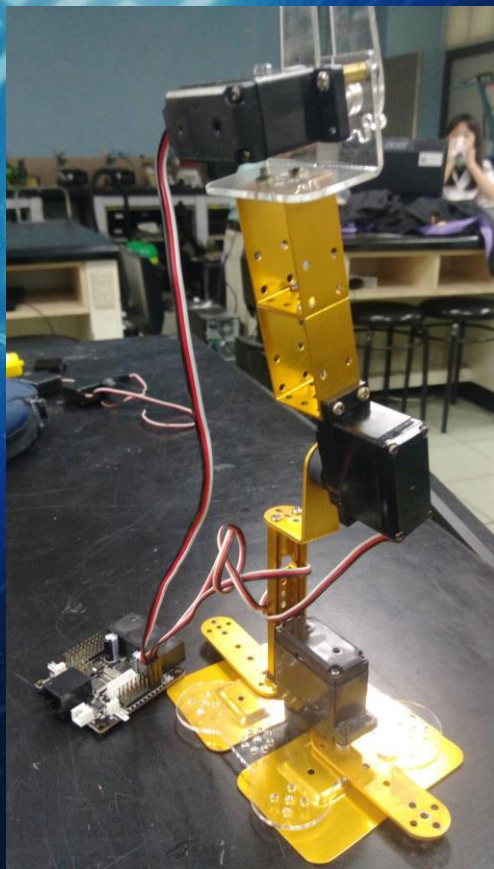
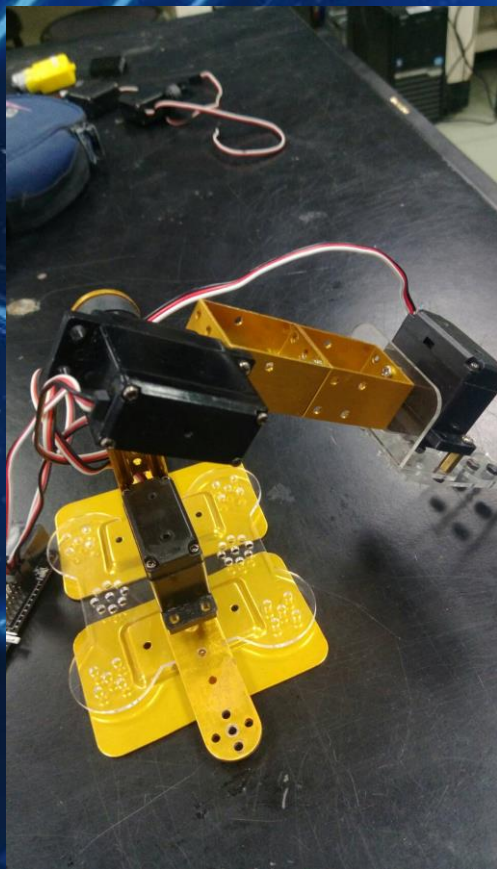
想好自己要做的  
機器人

開始組裝

寫入程式  
並測試

# 實作過程

# 組裝機器人



# 設計程式

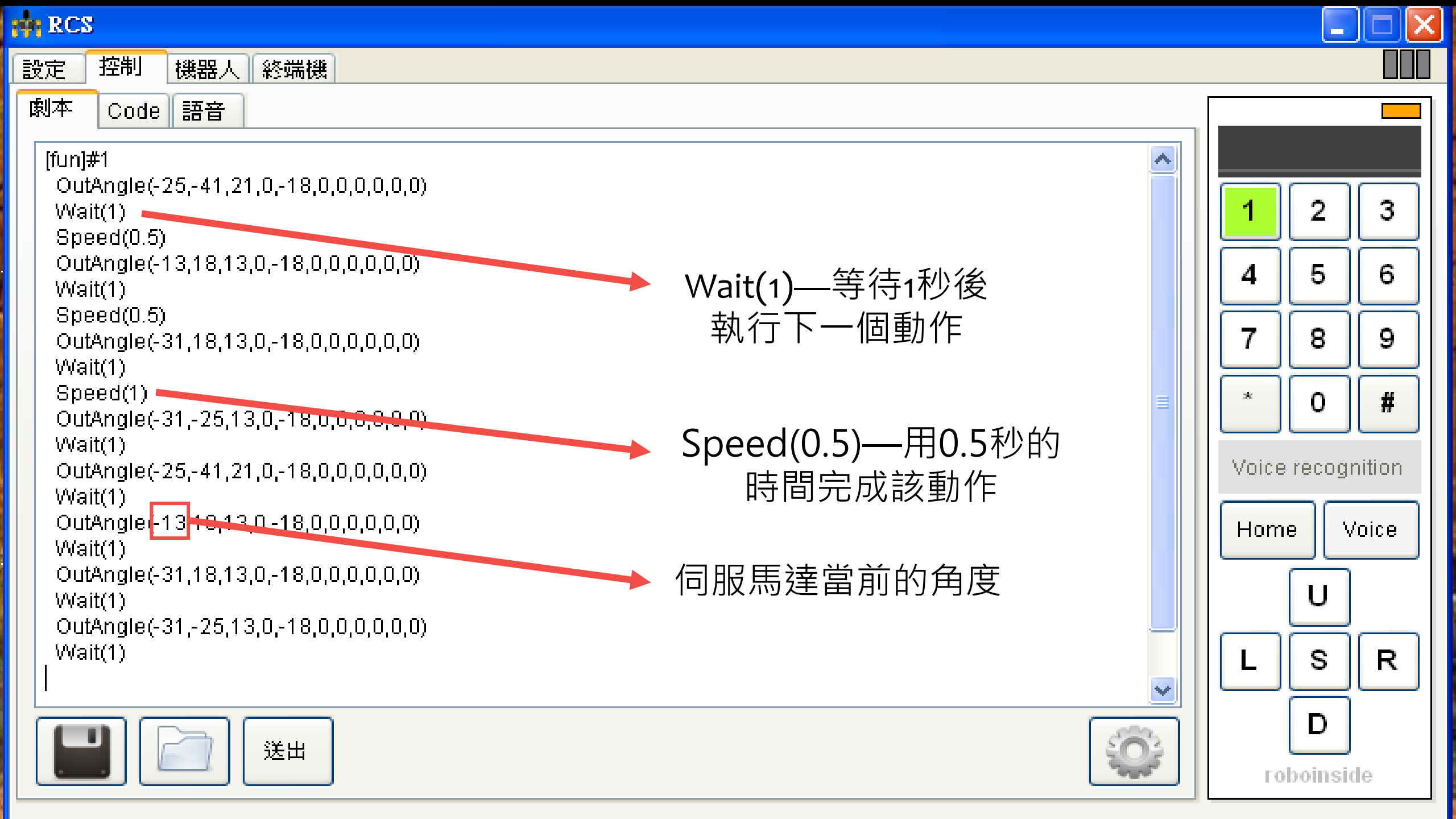
The screenshot displays the RCS software interface, which is used for controlling a robot. The interface is divided into several sections:

- Top Bar:** Contains the RCS logo and navigation tabs for 設定 (Settings), 控制 (Control), 機器人 (Robot), and 終端機 (Terminal).
- Main Control Area:** A grid of 11 motor gauges, each with a red needle and a numerical value. The gauges are numbered 1 through 11. Gauge 1 shows -31, gauge 2 shows -25, gauge 3 shows 13, gauge 5 shows -18, gauge 10 shows 0, gauge 11 shows 0, gauge 6 shows 0, gauge 7 shows 0, gauge 8 shows 0, and gauge 9 shows 0. There are also three small control boxes in the top left corner with values 1x, 0, and 0.
- Right Panel:** Contains a graph showing a green signal for RB11. Below the graph is a Direct control knob. Further down are buttons for 送出 (Send) with a Wi-Fi icon, and a range selector with values -45, 0, and +45, along with a 重置 (Reset) button and a 劇本 (Script) button.
- Bottom Panel:** Includes a table for defining motion segments, a playback timeline, and control buttons for 編輯 (Edit), 定義 (Define), 測試 (Test), and 造型 (Shape).

Motor	Value
1	-31
2	-25
3	13
4	0
5	-18
6	0
7	0
8	0
9	0
10	0
11	0

Segment	Start	End
01-10		
11-20		

Control	Value
1x	1x
0	0
0	0



```
[fun]#1
OutAngle(-25,-41,21,0,-18,0,0,0,0,0)
Wait(1)
Speed(0.5)
OutAngle(-13,18,13,0,-18,0,0,0,0,0)
Wait(1)
Speed(0.5)
OutAngle(-31,18,13,0,-18,0,0,0,0,0)
Wait(1)
Speed(1)
OutAngle(-31,-25,13,0,-18,0,0,0,0,0)
Wait(1)
OutAngle(-25,-41,21,0,-18,0,0,0,0,0)
Wait(1)
OutAngle(-13,18,13,0,-18,0,0,0,0,0)
Wait(1)
OutAngle(-31,18,13,0,-18,0,0,0,0,0)
Wait(1)
OutAngle(-31,-25,13,0,-18,0,0,0,0,0)
Wait(1)
```

Wait(1)—等待1秒後  
執行下一個動作

Speed(0.5)—用0.5秒的  
時間完成該動作

伺服馬達當前的角度

Control panel with a numeric keypad (1-9, \*, 0, #), Home and Voice buttons, a directional pad (U, L, S, R, D), and the text 'roboinside' at the bottom.



# 測試機器人

2.mp4

# 成果

[Produce.avi](#)

謝謝大家