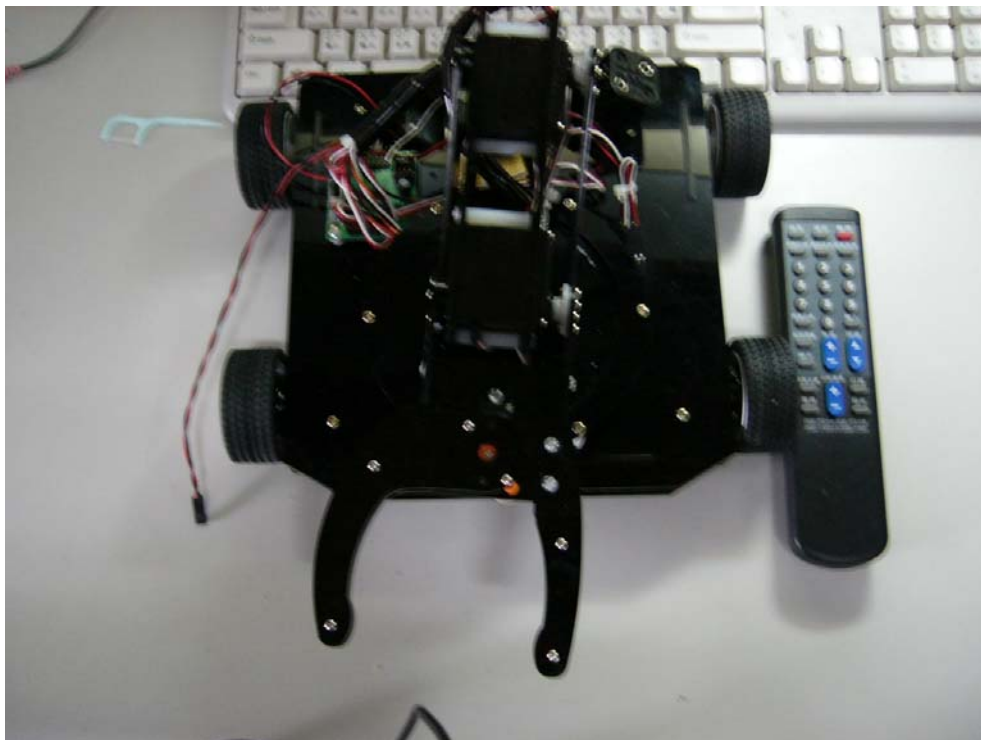
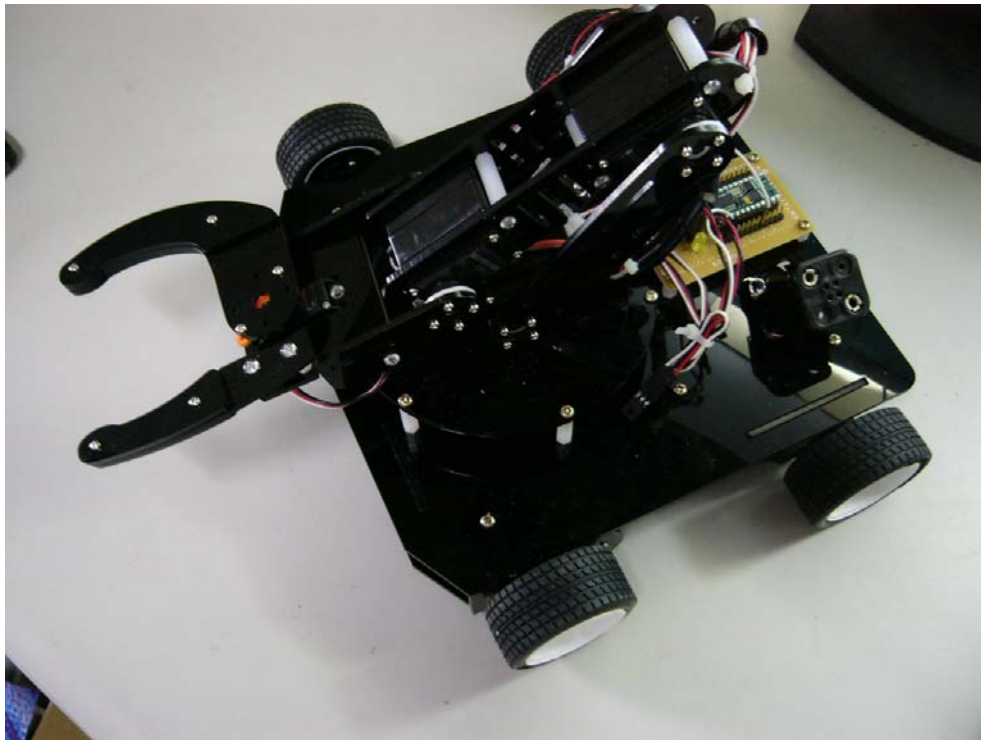
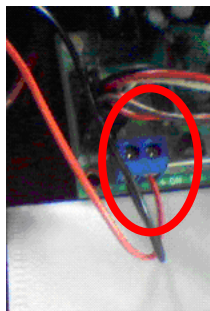
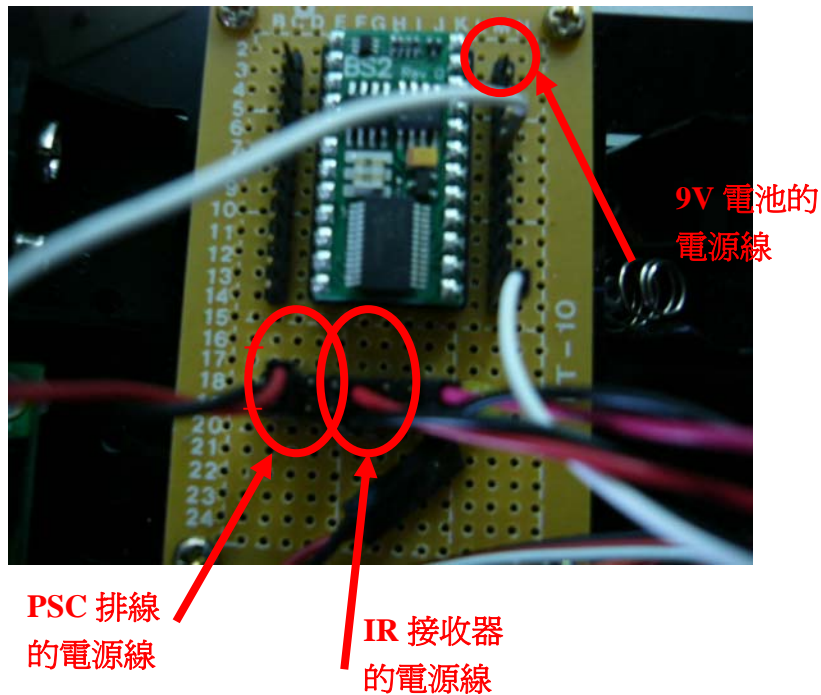


救難車使用說明手冊



PlayRobot Store

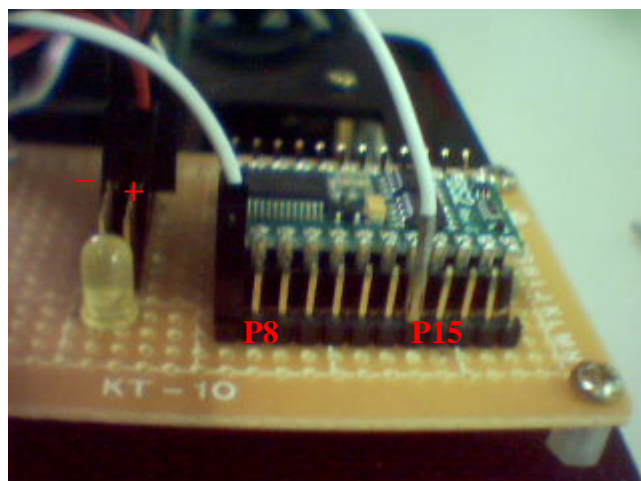
電源: 啟動需要將兩個電池盒放入電池. 四顆三號電池是用來供給伺服機運作用電源, 而 9 伏電池則是用來供給 BS2 運作所需要的電源.



伺服機所需要的四顆三號電池, 須將電池何的電線連至左圖的位置. 請注意正負號

接線:

BS2 的右下方第一個位置是 P8, 連接 IR 接收器的白色訊號線右上方數下來第 5 個是 P14 用來連接 PSC 排線的白色訊號線



遙控說明:



救難車移動的按鈕如上

2 往前

4 向左

5 停止

6 向右

8 往後

控制音量的按鈕用來控制夾子的夾與放

按下+號則會夾緊,-號則會放開

功能選擇的按鈕用來控制手臂向前及向後伸展的控制

按下+號手臂會往前伸,-號會讓手臂向後縮回

音量多重以及目錄的選項則可以控制手臂左右的方向

程式

```
' {$STAMP BS2}
```

```
' {$PBASIC 2.5}
```

```
' {$PORT COM1}
```

```
IR_IN          PIN      8
```

'IR Remote 接收遙控器的 PIN

```
time VAR Word(5)
```

'For IR signal storage

```
Sdat CON 15
```

```
baud CON 396
```

```
pw0 VAR Word
```

```
pw1 VAR Word
```

```
pw2 VAR Word
```

```
pw3 VAR Word
```

```
pw4 VAR Word
```

```
pw5 VAR Word
```

```
pw6 VAR Word
```

offset:

```
pw0=780
```

```
pw1=750
```

```
pw2=720
```

```
pw3=600
```

```
pw4=600
```

```
pw5=750
```

```
pw6=750
```

```
GOSUB move
```

PlayRobot Store

main:

DO

RCTIME IR_IN, 1, time(0)

' 此段程式用來接收 TV 遙控器送過來的調變訊號, 此段程式只適用在 SONY 遙控器 LOOP UNTIL time(0) > 1000 ' 抓前 5 個 data 用來分辨控制按鈕

PULSIN IR_IN, 0, time(0) ' Measure/store data pulses.

PULSIN IR_IN, 0, time(1)

PULSIN IR_IN, 0, time(2)

PULSIN IR_IN, 0, time(3)

PULSIN IR_IN, 0, time(4)

'DEBUG DEC(time(0)), CR '以下讀出 TV 遙控按鈕的值

'DEBUG DEC(time(1)), CR

'DEBUG DEC(time(2)), CR

'DEBUG DEC(time(3)), CR

'DEBUG DEC(time(4)), CR

'DEBUG "-----",CR

GOTO movemode

movemode:

IF (time(0)<700)AND(time(0)>500) AND (time(1)<400) AND (time(1)>300)AND
(time(2)<400)AND(time(2)>300) AND (time(3)<400)AND (time(3)>300) AND
(time(4)<400)AND(time(4)>300) THEN '2' go forward

'DEBUG "2 go forward",CR

pw0=630

pw1=900

GOSUB move

ELSEIF (time(0)<700)AND(time(0)>500) AND (time(1)<700) AND
(time(1)>550)AND (time(2)<400)AND(time(2)>300) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<400)AND(time(4)>300) THEN '4'turn left

PlayRobot Store

'DEBUG "4 trun left",CR

pw0=500

pw1=570

GOSUB move

ELSEIF (time(0)<700)AND(time(0)>500) AND (time(1)<400) AND
(time(1)>300)AND (time(2)<700)AND(time(2)>550) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<400)AND(time(4)>300) THEN '6'turn right

'DEBUG "6 turn right",CR

pw0=930

pw1=1000

GOSUB move

ELSEIF (time(0)<700)AND(time(0)>500) AND (time(1)<700) AND
(time(1)>500)AND (time(2)<700)AND(time(2)>500) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<400)AND(time(4)>300) THEN '8' go back

'DEBUG "8 go back",CR

pw0=930

pw1=600

GOSUB move

ELSEIF (time(0)<400)AND(time(0)>300) AND (time(1)<400) AND
(time(1)>300)AND (time(2)<700)AND(time(2)>500) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<400)AND(time(4)>300) THEN '5'stop

'DEBUG "5 stop ",CR

pw0=780

pw1=750

GOSUB move

ELSEIF (time(0)<400)AND(time(0)>300) AND (time(1)<400) AND
(time(1)>300)AND (time(2)<700)AND(time(2)>500) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<700)AND(time(4)>500) THEN 'arm forward

'DEBUG "+ arm forward",CR

IF pw3 < 969 THEN

PlayRobot Store

pw3 = pw3+45

pw4 = pw4+30

pw5 = pw5-15

ENDIF

GOSUB move

ELSEIF (time(0)<700)AND(time(0)>500) AND (time(1)<400) AND
(time(1)>300)AND (time(2)<700)AND(time(2)>500) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<700)AND(time(4)>500) THEN 'arm backward

'DEBUG "- arm backward",CR

IF pw3 > 6895555 THEN

pw3 = pw3-45

pw4 = pw4-30

pw5 = pw5+15

GOSUB move

ENDIF

ELSEIF (time(0)<700)AND(time(0)>500) AND (time(1)<700) AND
(time(1)>550)AND (time(2)<700)AND(time(2)>500) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<700)AND(time(4)>500) THEN '6' Turn Right

'DEBUG "L arm turn left",CR

IF pw2 < 949 THEN

pw2=pw2+50

ENDIF

GOSUB move

ELSEIF (time(0)<400)AND(time(0)>300) AND (time(1)<400) AND
(time(1)>300)AND (time(2)<400)AND(time(2)>300) AND (time(3)<400)AND
(time(3)>300) AND (time(4)<400)AND(time(4)>300) THEN '7' Heading to 8
O'clock

'DEBUG "R arm turn right",CR

IF pw2 > 551 THEN

pw2=pw2-50

ENDIF

PlayRobot Store

GOSUB move

```
ELSEIF (time(0)<400)AND(time(0)>300) AND (time(1)<700) AND  
(time(1)>550)AND (time(2)<400)AND(time(2)>300) AND (time(3)<400)AND  
(time(3)>300) AND (time(4)<700)AND(time(4)>500) THEN 'hold item
```

```
'DEBUG "arm grab",CR
```

```
IF pw6 < 920 THEN
```

```
    pw6 = pw6+60
```

```
ENDIF
```

```
GOSUB move
```

```
ELSEIF (time(0)<700)AND(time(0)>500) AND (time(1)<700) AND  
(time(1)>550)AND (time(2)<400)AND(time(2)>300) AND (time(3)<400)AND  
(time(3)>300) AND (time(4)<700)AND(time(4)>500) THEN 'release item
```

```
'DEBUG "arm release",CR
```

```
IF pw6 > 750 THEN
```

```
    pw6 = pw6-60
```

```
ENDIF
```

```
GOSUB move
```

```
ELSE
```

```
GOSUB main
```

```
ENDIF
```

move:

```
SEROUT Sdat, Baud+$8000,["!SC", 0, 7, pw0.LOWBYTE, pw0.HIGHBYTE,  
CR]
```

```
PAUSE 10
```

```
SEROUT Sdat, Baud+$8000,["!SC", 1, 7, pw1.LOWBYTE, pw1.HIGHBYTE,  
CR]
```

```
PAUSE 10
```

```
SEROUT Sdat, Baud+$8000,["!SC", 2, 7, pw2.LOWBYTE, pw2.HIGHBYTE,  
CR]
```


PlayRobot Store

PAUSE 10

SEROUT Sdat, Baud+\$8000,["!SC", 3, 7, pw3.LOWBYTE, pw3.HIGHBYTE,
CR]

PAUSE 10

SEROUT Sdat, Baud+\$8000,["!SC", 4, 7, pw4.LOWBYTE, pw4.HIGHBYTE,
CR]

PAUSE 10

SEROUT Sdat, Baud+\$8000,["!SC", 5, 7, pw5.LOWBYTE, pw5.HIGHBYTE,
CR]

PAUSE 10

SEROUT Sdat, Baud+\$8000,["!SC", 6, 7, pw6.LOWBYTE, pw6.HIGHBYTE,
CR]

PAUSE 10

GOSUB main