```
' {$STAMP BS2}
' {$PBASIC 2.5}

pulseCount VAR Byte
irDetectLeft VAR Bit
irDetectRight VAR Bit

FREQOUT 4, 2000, 3000

DO
FREQOUT 8, 1, 43500
irDetectLeft = IN9
FREQOUT 2, 1, 43500
irDetectRight = IN0

IF (IN5 = 0) AND (IN7 = 0) THEN     '前障礙
GOSUB Back_Up
ELSEIF (IN5 = 0) THEN   '左障礙
GOSUB Turn_Right
ELSEIF (IN7 = 0) THEN   '右障礙
GOSUB Turn_Left
ELSE
GOSUB C                 '無障礙 跳到光敏感測
ENDIF

LOOP

C  '光敏感測
IF (IN3 = 0) AND (IN6 = 0) THEN
FOR pulseCount = 0 TO 10
PULSOUT 14, 650
PULSOUT 15, 820
PAUSE 10
NEXT

ELSEIF (IN3 = 0) THEN
PULSOUT 14, 850
PULSOUT 15, 850
PAUSE 5

ELSEIF (IN6 = 0) THEN
PULSOUT 14, 650
PULSOUT 15, 650
PAUSE 5

ELSEIF (IN3 =1 ) AND (IN6 = 1) THEN
GOSUB B   '光敏無偵測到 跳到紅外線感測
ENDIF
RETURN

B '紅外線開啓
IF (irDetectRight = 0) AND (irDetectLeft = 0) THEN  '直走
PULSOUT 14, 650
PULSOUT 15, 850
PAUSE 5
ELSEIF (irDetectRight = 1) AND (irDetectLeft = 1) THEN '直走
PULSOUT 14, 650
PULSOUT 15, 850
PAUSE 5

ELSEIF(irDetectRight  irDetectLeft) THEN  '右障礙
FOR pulseCount = 0 TO 24
PULSOUT 14, 650
PULSOUT 15, 850
PAUSE 10
NEXT
FOR pulseCount = 0 TO 32  '左轉
PULSOUT 14, 650
PULSOUT 15, 650
PAUSE 10
NEXT

FOR pulseCount = 0 TO 40
PULSOUT 14, 650
PULSOUT 15, 850
```

```
PAUSE 10
NEXT

ELSEIF(irDetectLeft  irDetectRight) THEN '左障礙
FOR pulseCount = 0 TO 24
PULSOUT 14, 650
PULSOUT 15, 850
PAUSE 10
NEXT

FOR pulseCount = 0 TO 32     '右轉
PULSOUT 14, 850
PULSOUT 15, 850
PAUSE 10
NEXT

FOR pulseCount = 0 TO 40
PULSOUT 14, 650
PULSOUT 15, 850
PAUSE 10
NEXT

ENDIF
RETURN

Turn_Left            '左轉
FOR pulseCount = 0 TO 3
PULSOUT 15, 650
PULSOUT 14, 650
PAUSE 5
NEXT
RETURN
Turn_Right           '右轉
FOR pulseCount = 0 TO 2
PULSOUT 15, 850
PULSOUT 14, 850
PAUSE 5
NEXT
RETURN
Back_Up              '後退
FOR pulseCount = 0 TO 25
PULSOUT 15, 650
PULSOUT 14, 850
PAUSE 10
NEXT
FOR pulseCount = 0 TO 25
PULSOUT 15, 650
PULSOUT 14, 650
PAUSE 5
NEXT
RETURN
```