

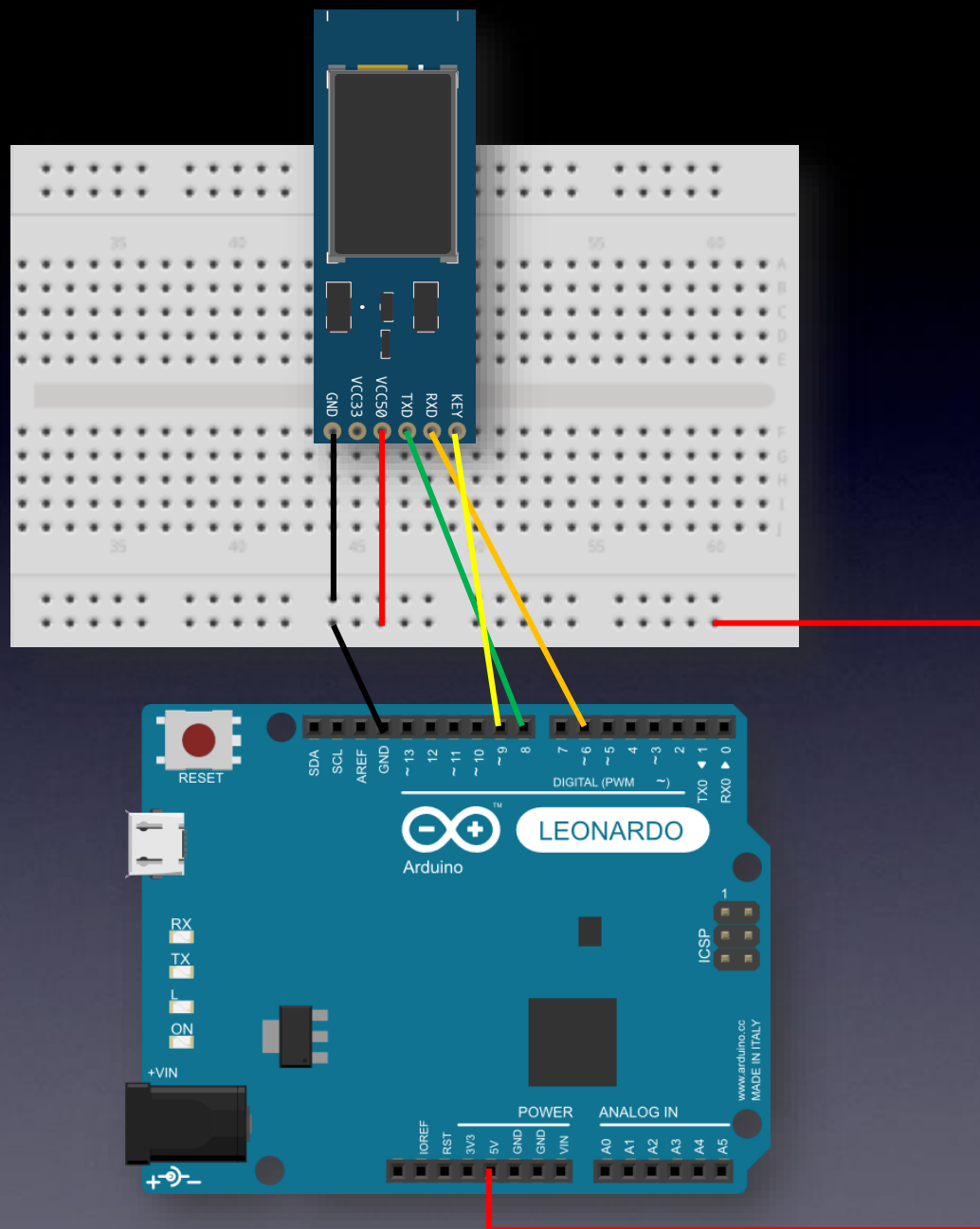
第二章附註

HC-05 AT COMMAND模式

進入AT COMMAND模式

- 可藉由Arduino讓HC-05直接進入AT Command模式
- 使用Arduino開發工具的Serial Monitor便可以傳送AT Command去調校HC-05
 - e.g.修改名字、連線的鮑率(Baud)、連線的角色
- 首先HC-05的VCC改接5V
- 在HC-05中有個Key的腳位，此腳位取得高電位，就可以進入AT Command模式

電路圖



程式碼

```
#include <SoftwareSerial.h>

SoftwareSerial BTSerial(8, 6);

void setup()
{
  pinMode(9, OUTPUT);
  digitalWrite(9, HIGH);
  Serial.begin(9600);
  Serial.println("Enter AT commands:");
  BTSerial.begin(38400);
}

void loop()
{
  // Keep reading from HC-05 and send to Arduino Serial Monitor
  if (BTSerial.available())
    Serial.write(BTSerial.read());

  // Keep reading from Arduino Serial Monitor and send to HC-05
  if (Serial.available())
    BTSerial.write(Serial.read());
}
```

程式碼

Leonardo, Uno
使用軟體模擬序列埠

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial BTSerial(8, 6);
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```
void setup()
```

```
{  
  pinMode(9, OUTPUT);  
  digitalWrite(9, HIGH);  
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void loop()
```

```
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  // Keep reading from HC-05 and send to Arduino Serial Monitor  
  if (BTSerial.available())  
    Serial.write(BTSerial.read());  
  
  // Keep reading from Arduino Serial Monitor and send to HC-05  
  if (Serial.available())  
    BTSerial.write(Serial.read());  
}
```

程式碼

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial BTSerial(8, 6);
```

設定接收、傳送的Pin腳

```
void setup()
```

```
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  pinMode(9, OUTPUT);  
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void loop()
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    Serial.write(BTSerial.read());  
  
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}
```

設定Pin 9要輸出

```
void loop()
```

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  // Keep reading from HC-05 and send to Arduino Serial Monitor  
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void setup()
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  Serial.println("Enter AT commands:");  
  BTSerial.begin(38400);  
}
```

Pin9 寫高電位

```
void loop()
```

```
{  
  
  // Keep reading from HC-05 and send to Arduino Serial Monitor  
  if (BTSerial.available())  
    Serial.write(BTSerial.read());  
  
  // Keep reading from Arduino Serial Monitor and send to HC-05  
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    BTSerial.write(Serial.read());  
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```


程式碼

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial BTSerial(8, 6);
```

```
void setup()
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  pinMode(9, OUTPUT);  
  digitalWrite(9, HIGH);  
  Serial.begin(9600);  
  Serial.println("Enter AI commands:");  
  BTSerial.begin(38400);  
}
```

啟動Serial在9600

```
void loop()
```

```
{  
  
  // Keep reading from HC-05 and send to Arduino Serial Monitor  
  if (BTSerial.available())  
    Serial.write(BTSerial.read());  
  
  // Keep reading from Arduino Serial Monitor and send to HC-05  
  if (Serial.available())  
    BTSerial.write(Serial.read());  
}
```

程式碼

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial BTSerial(8, 6);
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```
void setup()
```

```
{
```

```
  pinMode(9, OUTPUT);
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```
  digitalWrite(9, HIGH);
```

```
  Serial.begin(9600);
```

```
  Serial.println("Enter AT commands:");
```

```
  BTSerial.begin(38400);
```

```
}
```

```
void loop()
```

```
{
```

```
  // Keep reading from HC-05 and send to Arduino Serial Monitor
```

```
  if (BTSerial.available())
```

```
    Serial.write(BTSerial.read());
```

```
  // Keep reading from Arduino Serial Monitor and send to HC-05
```

```
  if (Serial.available())
```

```
    BTSerial.write(Serial.read());
```

```
}
```

藍芽啟動在38400

程式碼

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial BTSerial(8, 6);
```

```
void setup()
```

```
{
```

```
  pinMode(9, OUTPUT);
```

```
  digitalWrite(9, HIGH);
```

```
  Serial.begin(9600);
```

```
  Serial.println("Enter AT command");
```

```
  BTSerial.begin(38400);
```

```
}
```

```
void loop()
```

```
{
```

```
  // Keep reading from HC-05 and send to Arduino Serial Monitor
```

```
  if (BTSerial.available())
```

```
    Serial.write(BTSerial.read());
```

```
  // Keep reading from Arduino Serial Monitor and send to HC-05
```

```
  if (Serial.available())
```

```
    BTSerial.write(Serial.read());
```

```
}
```

若無法連線，換其他鮑率試看看

4800, 9600, 19200, 38400, 57600, 115200, 23400,
460800, 921600, 1382400

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void setup()
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  // Keep reading from Arduino Serial Monitor and send to HC-05
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    BTSerial.write(Serial.read());
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```

檢查藍芽是否有傳入

程式碼

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#include <SoftwareSerial.h>
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SoftwareSerial BTSerial(8, 6);
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void setup()
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}
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```
void loop()
```

```
{  
  
  // Keep reading from HC-05 and send to Arduino Serial Monitor  
  if (BTSerial.available())  
    Serial.write(BTSerial.read());
```

將藍芽傳來的內容輸出到序列

```
  // Keep reading from Arduino Serial Monitor and send to HC-05  
  if (Serial.available())  
    BTSerial.write(Serial.read());  
}
```

程式碼

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  // Keep reading from Arduino Serial Monitor and send to HC-05
  if (Serial.available())
    BTSerial.write(Serial.read());
}
```

檢查序列是否有內容要傳 to HC-05

程式碼

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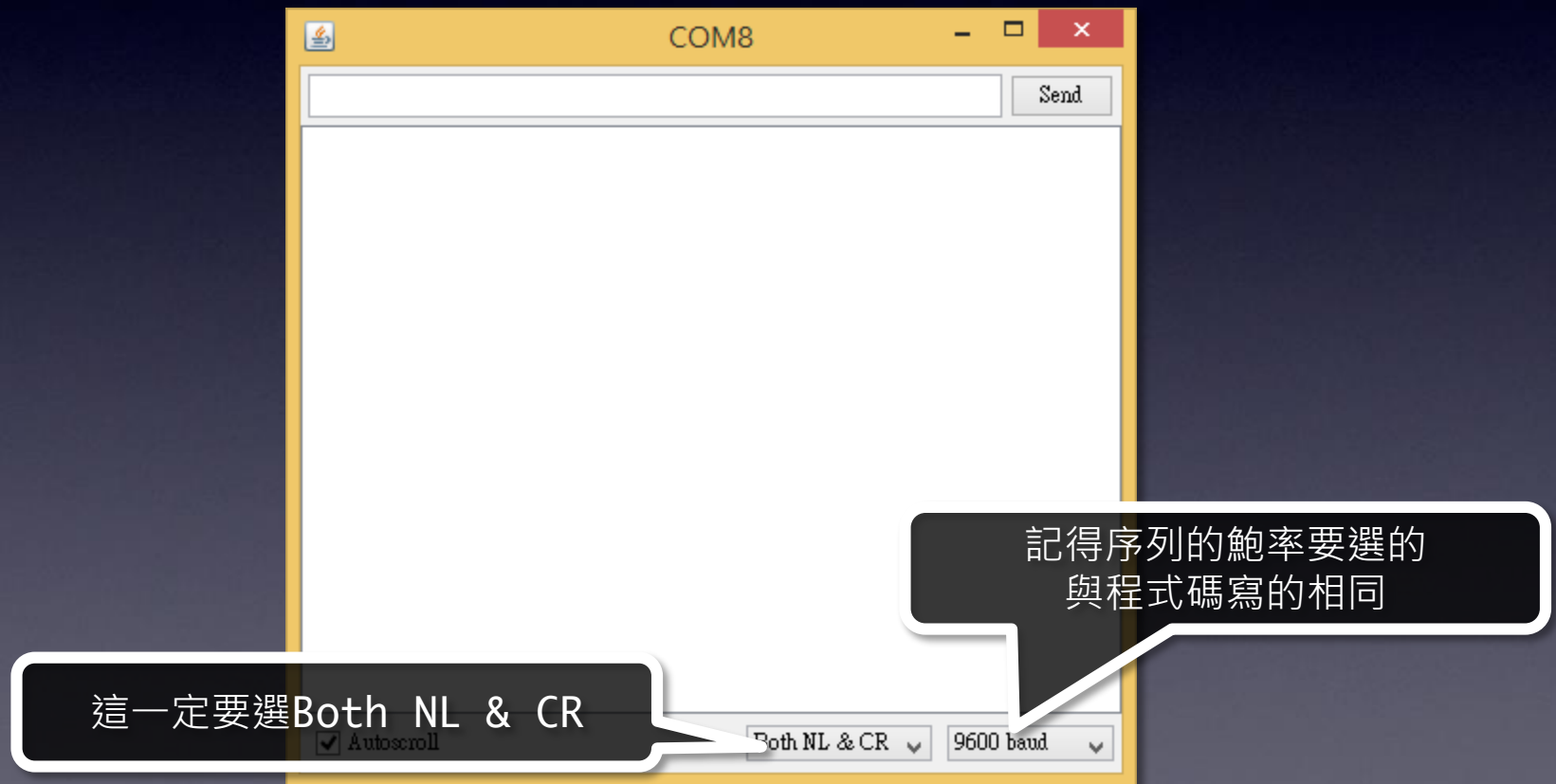
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```

將序列的內容傳入藍芽

進入AT COMMAND模式

- 將程式碼寫入Arduino後，打開



進入AT COMMAND模式

- 常用的AT Command包括
 - AT測試模組是否回應
 - AT+NAME? 詢問裝置名稱
 - AT+NAME=新名稱
 - AT+VERSION? 詢問藍芽版本
 - AT+ORGL 恢復原廠設定
 - AT+PSWD? 詢問目前密碼
 - AT+PSWD=新密碼
- 還有更多，請參閱文件