

# Corvette F1 Lab 4

## 4\*4 Keypads 與 LCM 顯示器

Driving Innovations™



# Lab 4 of Corvette F1

## ◆ Target:

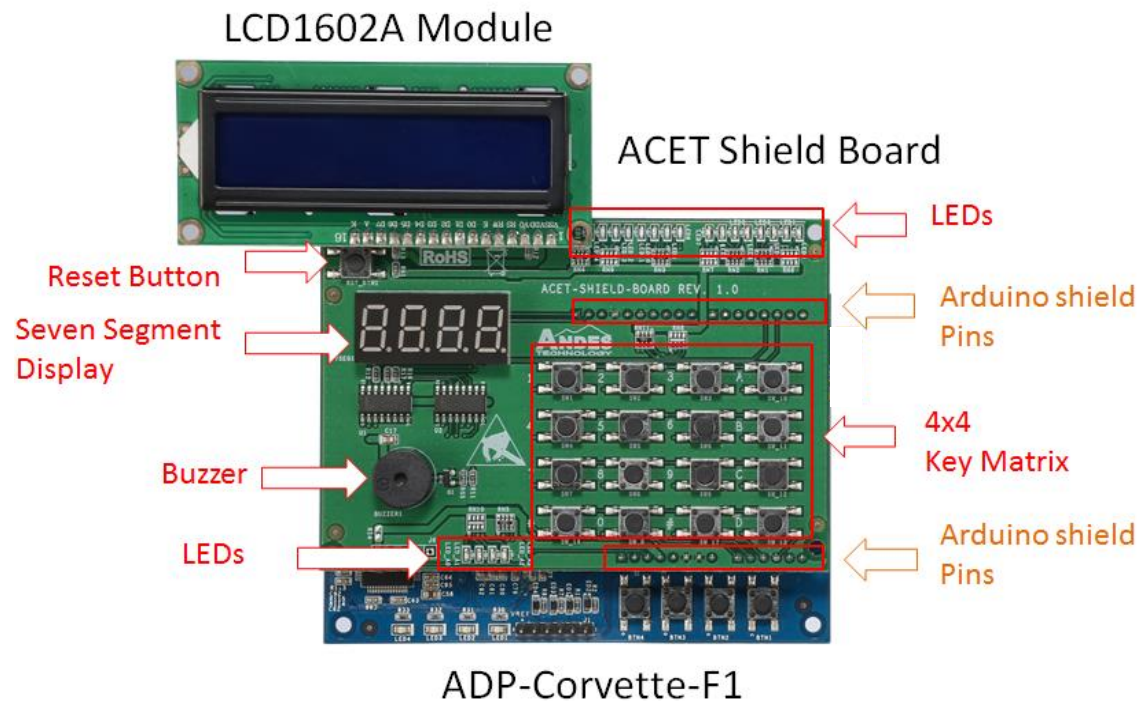
- Control 4\*4 Keypads 讓 LCM 顯示數字

## ◆ Hardware requirements:

- Corvette F1
- ACET Shield Board
- LCD1602A
- Micro-USB

## ◆ Software requirement

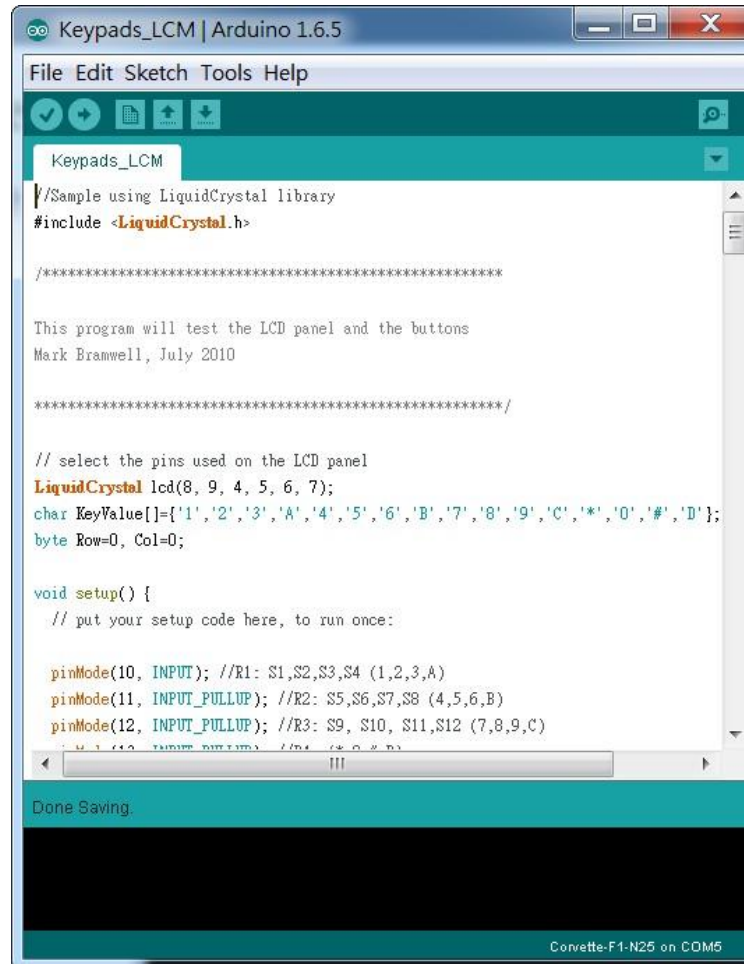
- Arduino software v1.6.5



# Lab 4

## ◆ Import Sample Code

- Run “Arduino IDE” program → Select “File”→ “Open” → “Keypads\_LCM ”



The screenshot shows the Arduino IDE interface with the 'Keypads\_LCM' sketch loaded. The window title is 'Keypads\_LCM | Arduino 1.6.5'. The menu bar includes 'File', 'Edit', 'Sketch', 'Tools', and 'Help'. The toolbar contains icons for opening, saving, and running. The sketch content is as follows:

```
Keypads_LCM

//Sample using LiquidCrystal library
#include <LiquidCrystal.h>

/*****

This program will test the LCD panel and the buttons
Mark Bramwell, July 2010

*****/

// select the pins used on the LCD panel
LiquidCrystal lcd(8, 9, 4, 5, 6, 7);
char KeyVal[16]={'1','2','3','A','4','5','6','B','7','8','9','C','*','0','#','D'};
byte Row=0, Col=0;

void setup() {
  // put your setup code here, to run once:

  pinMode(10, INPUT); //R1: S1,S2,S3,S4 (1,2,3,A)
  pinMode(11, INPUT_PULLUP); //R2: S5,S6,S7,S8 (4,5,6,B)
  pinMode(12, INPUT_PULLUP); //R3: S9, S10, S11,S12 (7,8,9,C)
  pinMode(13, INPUT_PULLUP); //R4: S13,S14,S15,S16 (10,11,12,D)
}
```

At the bottom of the IDE, a status bar indicates 'Corvette-F1-N25 on COM5'. A 'Done Saving.' message is visible in the bottom left of the IDE window.

# Lab 4

## ◆ Result

- 按 其中一個 4\*4 Keypads 讓 LCM 顯示數字及位置

