# CA LAB: 09

# Keypad Interfacing with ARDUINO Uno

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# 

# Code:

#include <Keypad.h>

#include <LiquidCrystal.h>

const int rs = 5, en = 4, d4 = 3, d5 = 2, d6 = 1, d7 = 0;

LiquidCrystal lcd(rs, en, d4, d5, d6, d7);

const int ROW\_NUM    = 4; // four rows

const int COLUMN\_NUM = 4; // four columns

char keys[ROW\_NUM][COLUMN\_NUM] = {

  {'1','2','3', 'A'},

  {'4','5','6', 'B'},

  {'7','8','9', 'C'},

  {'\*','0','#', 'D'}

};

byte pin\_rows[ROW\_NUM] = {13, 12, 11, 10};      // connect to the row pinouts of the keypad

byte pin\_column[COLUMN\_NUM] = {9, 8, 7, 6}; // connect to the column pinouts of the keypad

Keypad keypad = Keypad(makeKeymap(keys), pin\_rows, pin\_column, ROW\_NUM, COLUMN\_NUM);

int cursorColumn = 0;

void setup(){

  lcd.begin(16, 2);

  lcd.setCursor(0,0);

}

void loop(){

  char key = keypad.getKey();

  if (key) {

    lcd.setCursor(cursorColumn, 0); // move cursor to   (cursorColumn, 0)

    lcd.print(key);                 // print key at (cursorColumn, 0)

    cursorColumn++;                 // move cursor to next position

    if(cursorColumn == 16) {        // if reaching limit, clear LCD

      lcd.clear();

      cursorColumn = 0;

    }

  }

}