```
#include <Wire.h>
#include <LiquidCrystal.h>
int inpbutton;
int inpbutton2;
int i, j,k,l,m,o,p;
int topmin=26;
int sidemin=29;
int f_l=1;
int f_2=1;
char c;
const int rs =8 , en = 9, d4 =4 , d5 = 5, d6 = 6, d7 = 7;
LiquidCrystal lcd(rs, en, d4, d5, d6, d7);
// the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
 lcd.begin(16, 2);
 pinMode(53,INPUT);
  for(int i=22;i<41;i++)
  {
    pinMode(i, OUTPUT);
  }
  Serial.begin(9600);



}
char DispLCD(int top, int side){
  char disp[7][7]={{'A','B','C','D','E','F','G'},
                   {'H','I','J','K','L','M','N'},
                   {'O','P','Q','R','S','T','U'},
                   {'V','W','X','Y','Z','1','2'},
                   {'3','4','5','6','7','8','9'},
```

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                {' ','?',',',',','.','/','!','&'}};
  return disp[top][side];
}
int Top(){

 for(i=26;;i+=2)
   {
    digitalWrite(i, HIGH);   // turn the LED on (HIGH is the voltage level)
    delay(500); // wait for a second
    digitalWrite(i, LOW);    // turn the LED off by making the voltage LOW
    delay(500);
    inpbutton = digitalRead(53);
    Serial.println(inpbutton);
    if(inpbutton==f_l){
      return i;
    }
    if(i==38){
      i=24;
    }


     }
    inpbutton=0;
    }
int Side(int lck){
  digitalWrite(lck, HIGH);
 for(i=29;;i+=2)
   {
    digitalWrite(i, HIGH);   // turn the LED on (HIGH is the voltage level)
    delay(500); // wait for a second
    digitalWrite(i, LOW);    // turn the LED off by making the voltage LOW
    delay(500);
```

```
    inpbutton = digitalRead(53);
    Serial.println(inpbutton);
    if(inpbutton==f_l){
      return i;
    }
    if(i==39){
      i=27;
    }

     }
    inpbutton=0;
    }


void loop() {
    inpbutton=0;
    inpbutton = digitalRead(53);

    inpbutton2=0;
    inpbutton = digitalRead(52);
    if(inpbutton2=f_2){
      lcd.clear();
    }

    j=Top();

    k=Side(j);
   digitalWrite(j, HIGH);
   digitalWrite(k, HIGH);
   delay(3000);
   digitalWrite(j, LOW);
```

```
  digitalWrite(k, LOW);
  l=-1*(topmin-j);

  m=-1*(sidemin-k);
  o=l/2;
  p=m/2;
  c=DispLCD(p,o);
  lcd.print(c);
  inpbutton=0;


}
```