**EXERCISE 05**

**Source Code**

sbit LCD\_RS at RB0\_bit;

sbit LCD\_EN at RB1\_bit;

sbit LCD\_D4 at RB4\_bit;

sbit LCD\_D5 at RB5\_bit;

sbit LCD\_D6 at RB6\_bit;

sbit LCD\_D7 at RB7\_bit;

sbit LCD\_RS\_Direction at TRISB0\_bit;

sbit LCD\_EN\_Direction at TRISB1\_bit;

sbit LCD\_D4\_Direction at TRISB4\_bit;

sbit LCD\_D5\_Direction at TRISB5\_bit;

sbit LCD\_D6\_Direction at TRISB6\_bit;

sbit LCD\_D7\_Direction at TRISB7\_bit;

char txt1[] = "\*\*\*\*\*\*\*\*";

char i;

int pos1;

void Move\_Delay() {

Delay\_ms(100);

}

void main(){

CCP1CON = 0x00;

T1CON = 0x00;

VRCON = 0x00;

INTCON = 0x00;

CMCON = 0x07;

Lcd\_Init();

Lcd\_Cmd(\_LCD\_CLEAR);

Lcd\_Cmd(\_LCD\_CURSOR\_OFF);

Delay\_ms(10);

Lcd\_Out(1,1,txt1);

Move\_Delay();

while(1) {

pos1=5;

// Move outward

for(i = 1; i < 17; i++) {

Lcd\_Cmd(\_LCD\_CLEAR);

Lcd\_Out(1,i,txt1);

Move\_Delay();

}

// Move inward

for(i = 16; i > 0; i--) {

Lcd\_Cmd(\_LCD\_CLEAR);

Lcd\_Out(2,i,txt1);

Move\_Delay();

}

for(i = 0; i < 1; i++) {

Lcd\_Cmd(\_LCD\_CLEAR);

Lcd\_Out(1,i,txt1);

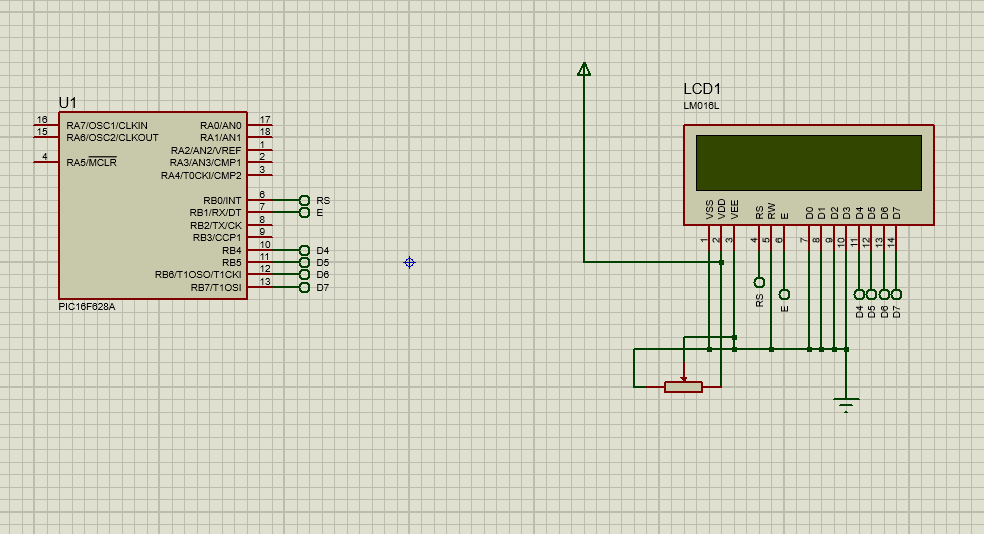
Move\_Delay();

}

}

}

**Circuit**

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**Observations**

