PROJECT NAME :Glove for Deaf

TEAM MEMBERS:

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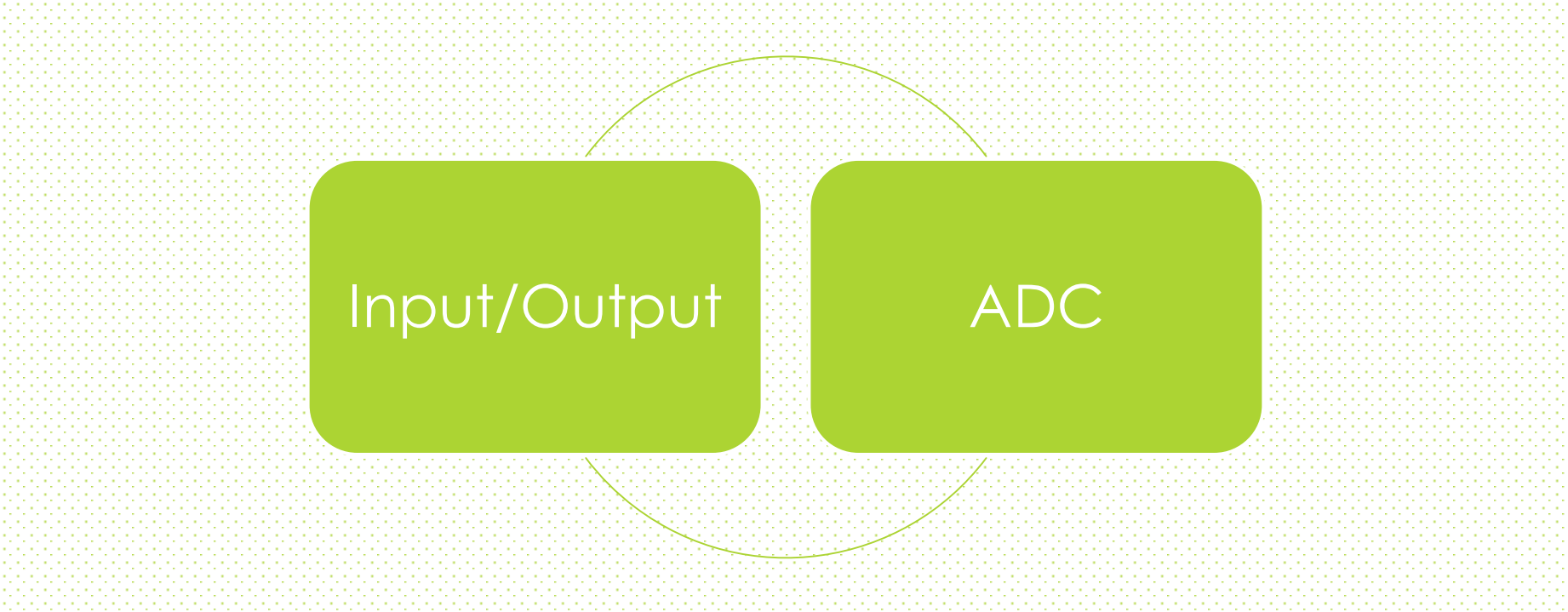
About the project

This project is made for Deaf use the sign language to be in touch with surrounding people, unfortunately, the people must learn or know the sign language to connect with them.

Tools

- LCD
- 5 POTENTIAL METER
- MICROCONTROLLER (ATmeaga32)

DRIVERS



Header Folder

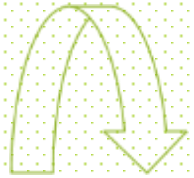
- ADC.h
- config.h
- I/O.h
- LCD8bit.h
- Loop.h
- Taskprint.h

Source Folder

- ADC.c
- Main.c
- I/O.c
- LCD8bit.c
- Loop.c
- Taskprint.c

Drive: Input/Output(Functions)

Functions

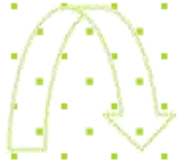


PORT LEVEL

- void setPortDir (int portNum , int state);
- void setPortData (int portNum , int data);
- void togglePortData(int portNum);

Drive: Input/Output(Functions)

Functions



PIN LEVEL

- void setPinDir (int portNum , int pinNum, int state);
- void setPinData (int portNum , int pinNum, int data);
- void togglePinData(int portnum ,int pinNum);

Drive: ADC(Functions)

- void ADC_init(int Reference ,int prescaler);
- void ADC_channel(int _channel);
- void ADC_start_conversion();
- int ADC_read();
- void init_Interrupt_ADC();

LCD (Functions)

- void lcd_init();
- void lcd_write(char data);
- void lcd_write_str(char * str);
- void lcd_write_num(int num);
- void lcd_write_cmd(char cmd);
- void lcd_enabel();
- void lcd_clear();

LOOP (Functions)

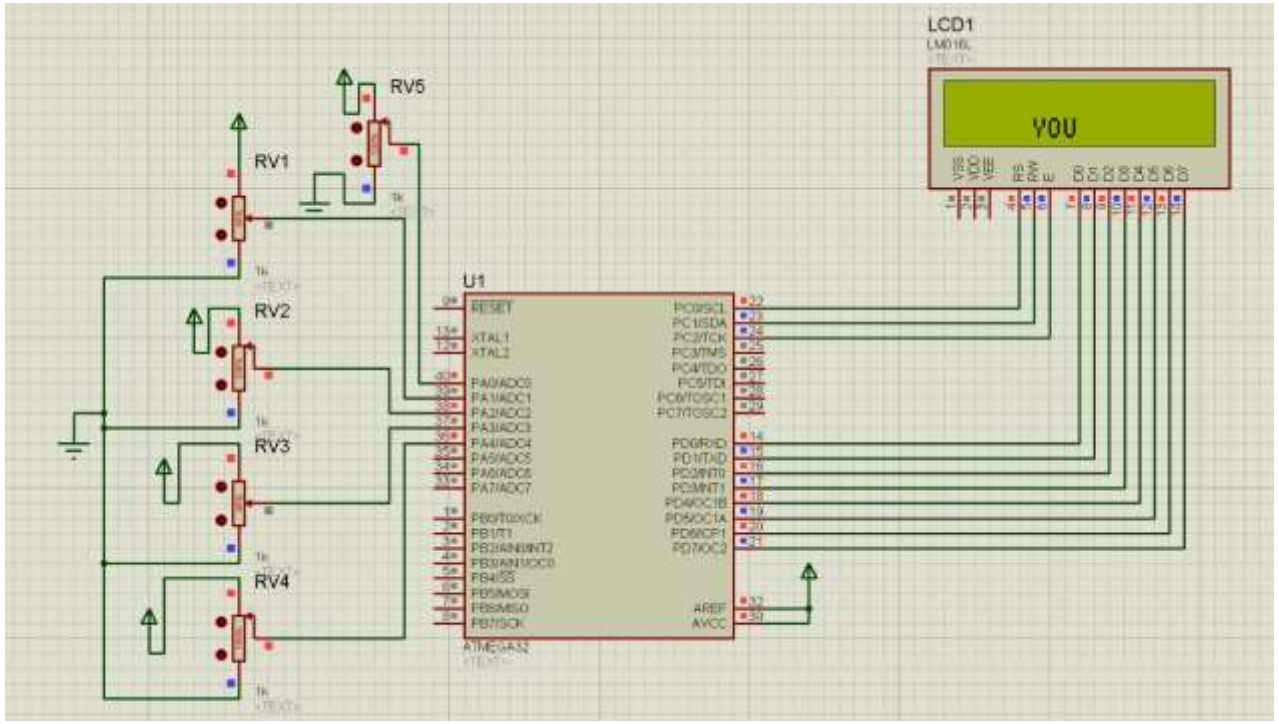
- void ADC_Channel_Increment();
- void ADC_Save_Read();
- void Operations_Move_Hand();

TASKPRINT (Functions)

- void Write_you();
- void Write_I_M_Watching();
- void Write_REALLY_I_LOVE_YOU();
- void Write_I_LOVE_YOU();
- void Write_THIS_IS_TERRIBLE();
- void Write_I_WISH_YOU_A_HAPPY_LIFE();
- void Write_EXCELLENT_WORK();

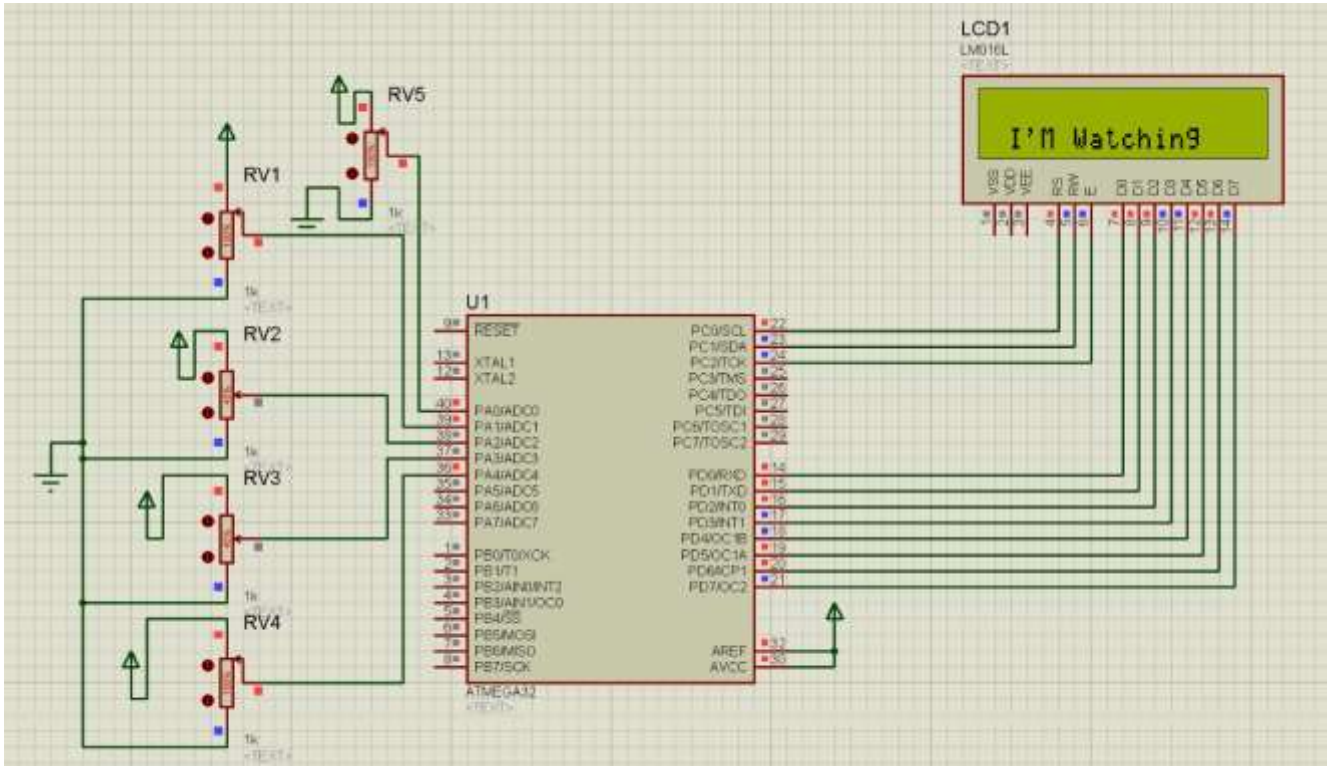
void Write_you();

P1=100% P2=45% P3=100% P4=45% P5=100%



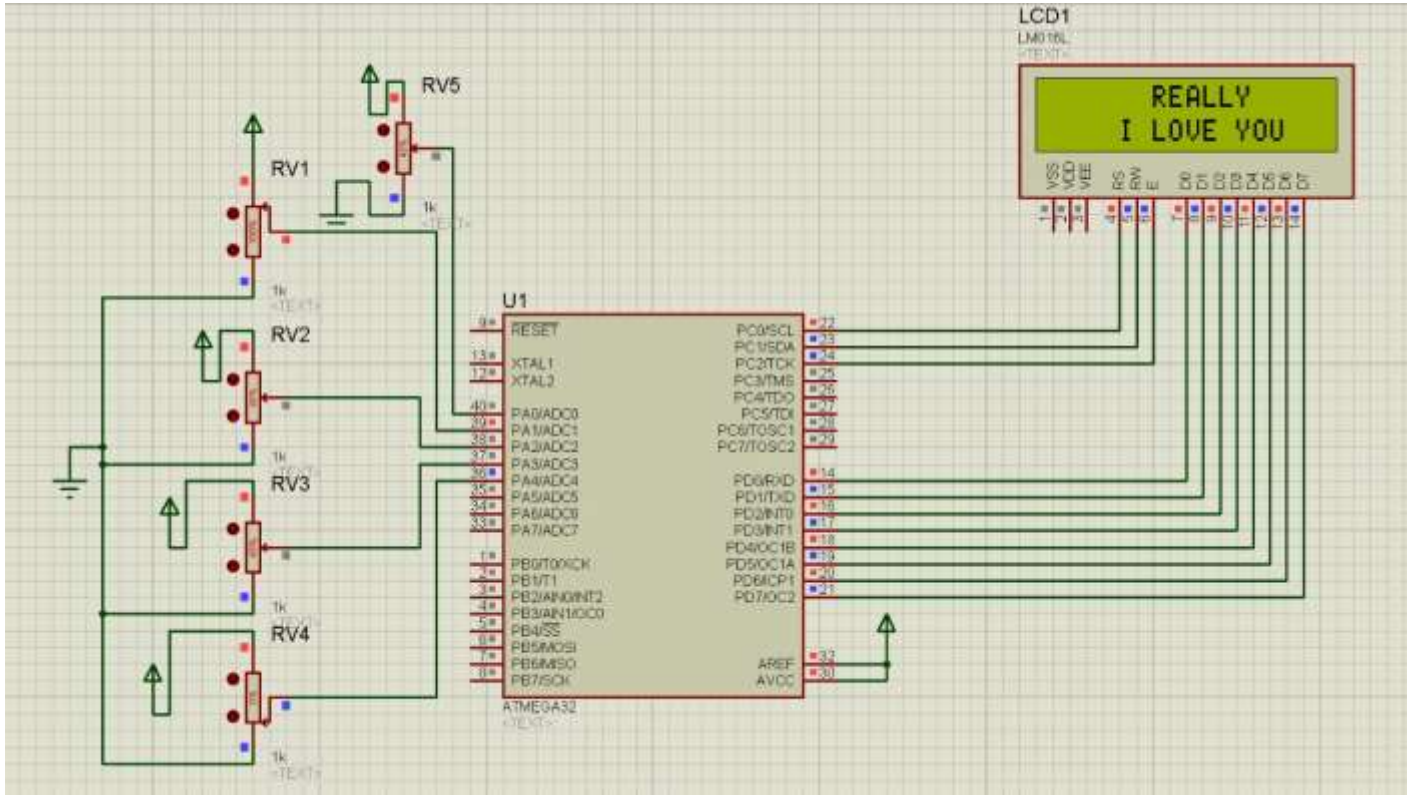
void Write_I_M_Watching();

P1=100% P2=100% P3=45% P4=45% P5=100%



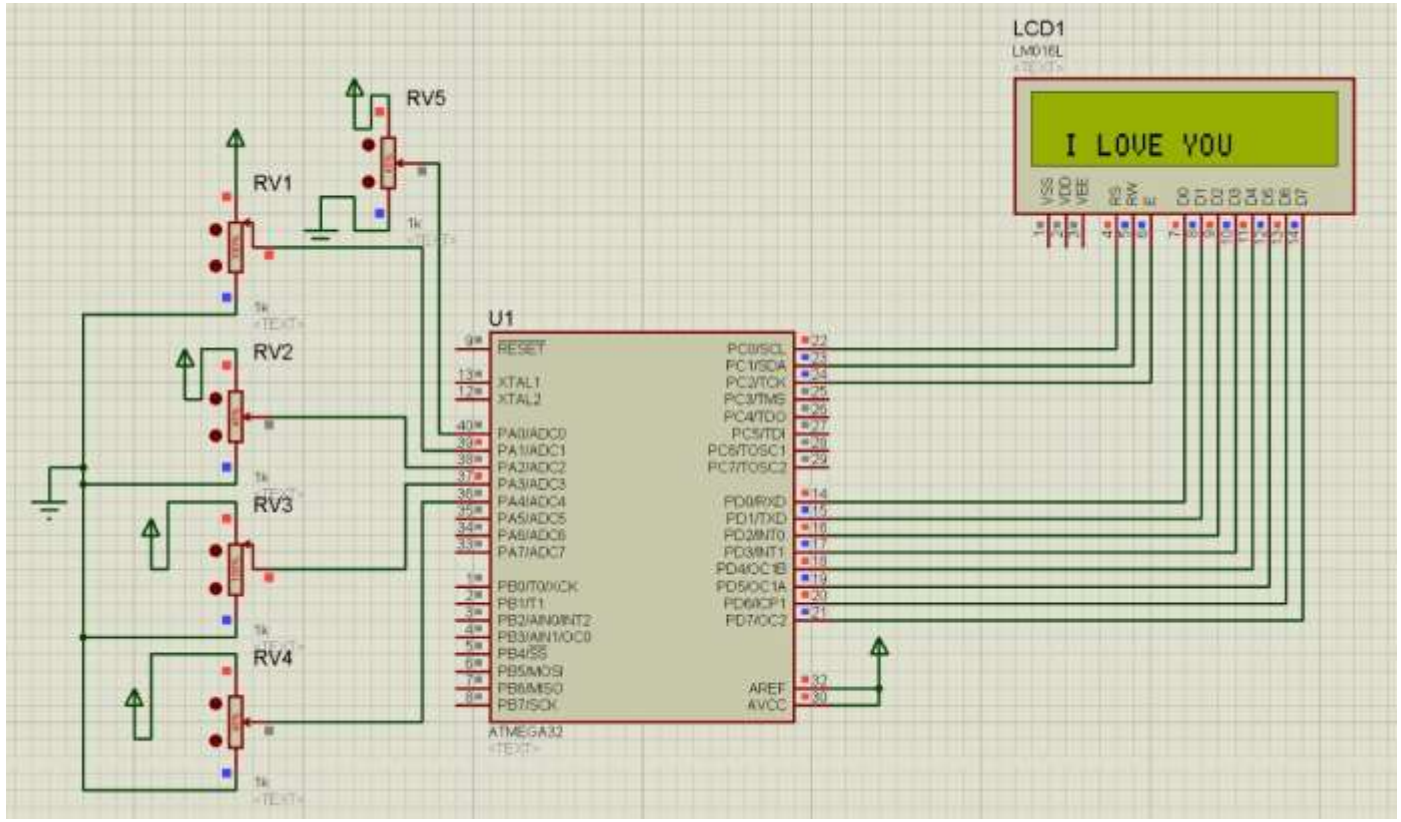
void Write_REALLY_I_LOVE_YOU();

P1=45% P2=100% P3=45% P4=45% P5=0%



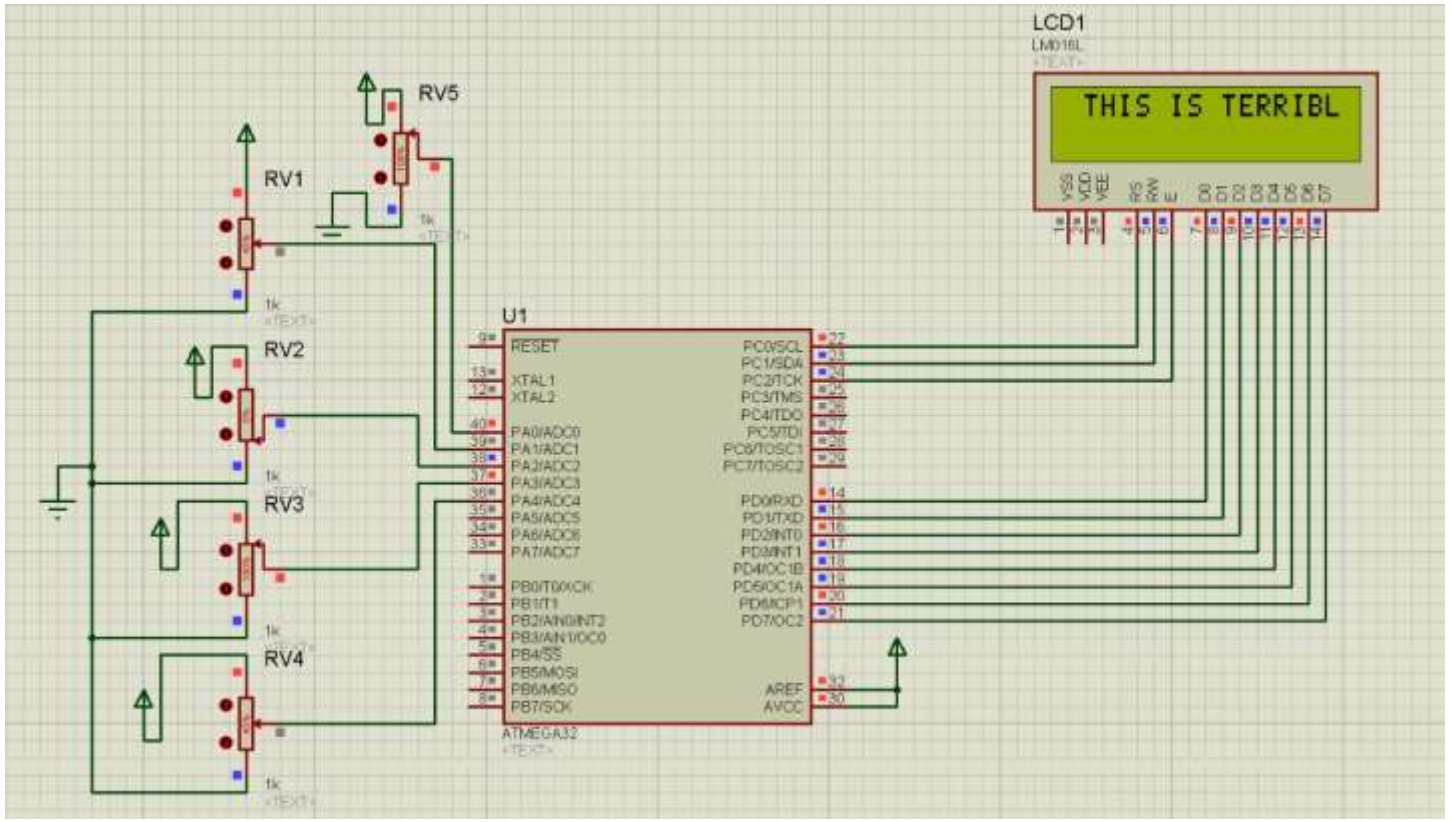
void Write_I_LOVE_YOU();

P1=45% P2=100% P3=45% P4=100% P5=45%



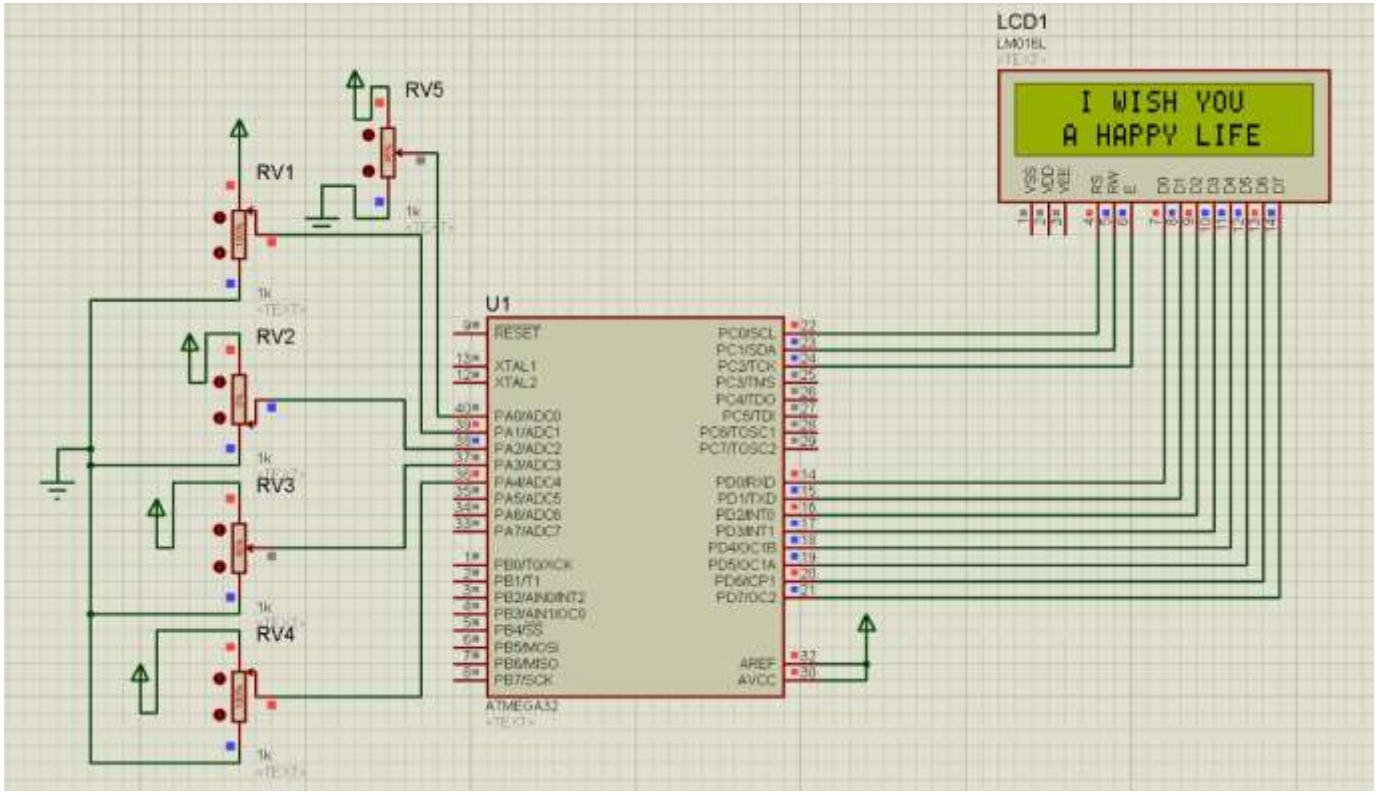
void Write_THIS_IS_TERRIBLE();

P1=100% P2=45% P3=0% P4=100% P5=45%



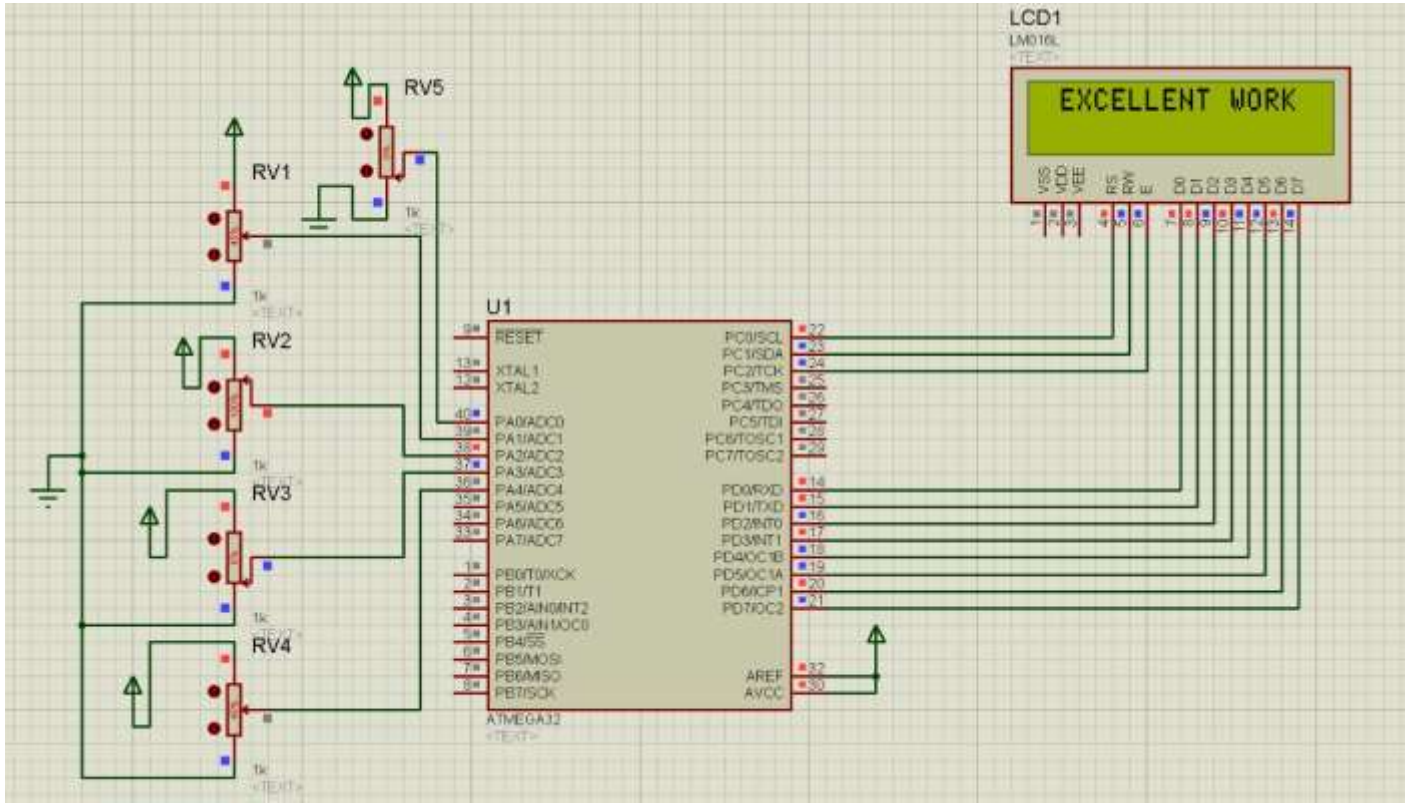
void Write_I_WISH_YOU_A_HAPPY_LIFE();

P1=45% P2=100% P3=0% P4=45% P5=100%



void Write_EXCELLENT_WORK();

P1=0% P2=45% P3=100% P4=0% P5=45%



MAIN.C (Code)

```
int main(void)
```

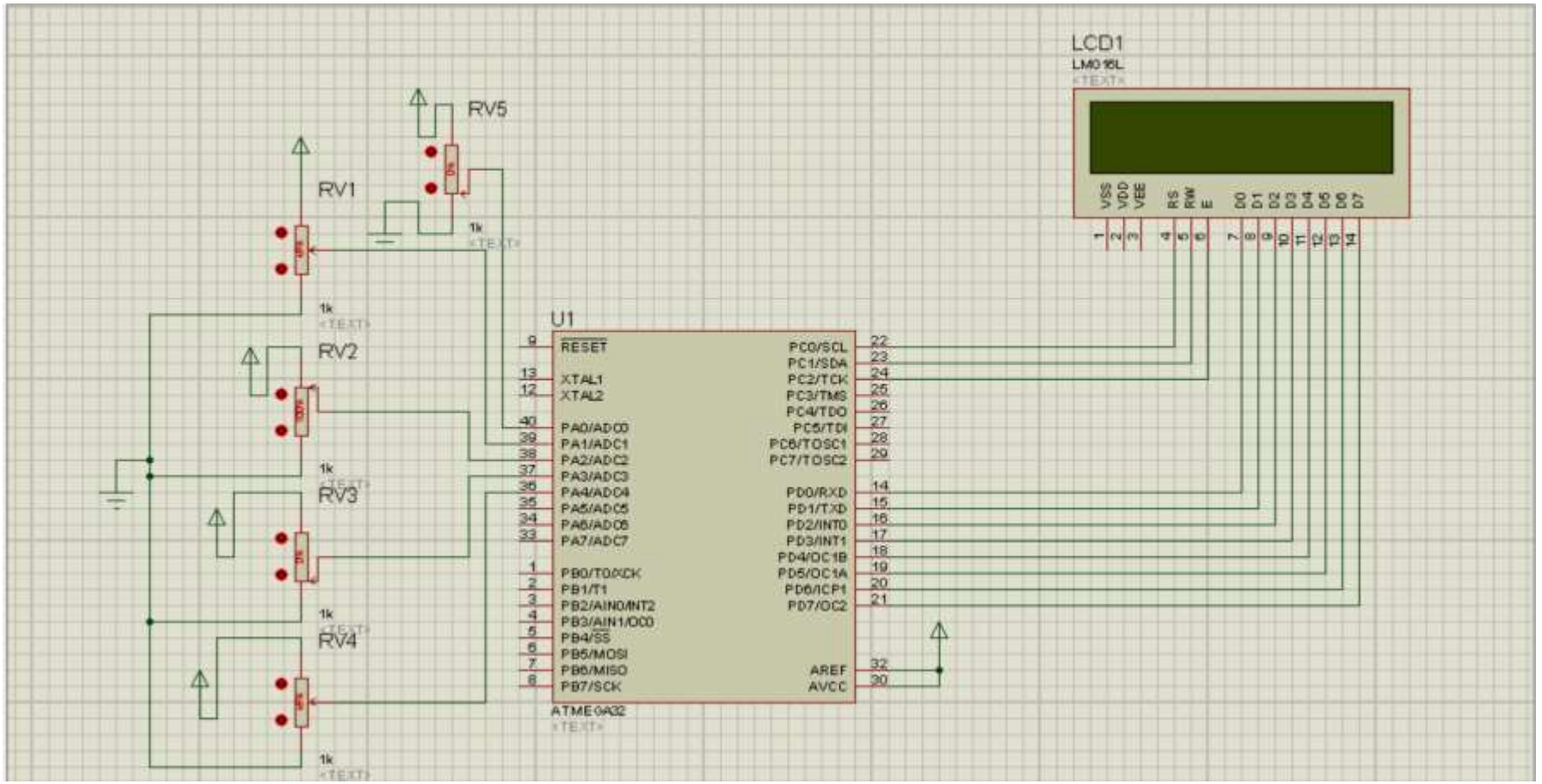
```
ADC_init(_VCC, _prescaler_128);
```

```
lcd_init();
```

MAIN.C (Code)

```
while (1)
ADC_Channel_Increment();
ADC_Save_Read();
Operations_Move_Hand();
```

SIMULATION


LCD1
LM016L
VSS
VDD
VEE
RS
RW
E
D0
D1
D2
D3
D4
D5
D6
D7
U1
ATMEGA32
RESET
XTAL1
XTAL2
PA0/ADC0
PA1/ADC1
PA2/ADC2
PA3/ADC3
PA4/ADC4
PA5/ADC5
PA6/ADC6
PA7/ADC7
PB0/T0/XCK
PB1/T1
PB2/AIN0/INT2
PB3/AIN1/OC0
PB4/SS
PB5/MOSI
PB6/MISO
PB7/SCK
PC0/SCL
PC1/SDA
PC2/TCK
PC3/TMS
PC4/TDO
PC5/TDI
PC6/TOSC1
PC7/TOSC2
PD0/RXD
PD1/TXD
PD2/INT0
PD3/INT1
PD4/OC1B
PD5/OC1A
PD6/ICP1
PD7/OC2
AREF
AVCC
RV1
RV2
RV3
RV4
RV5
1k