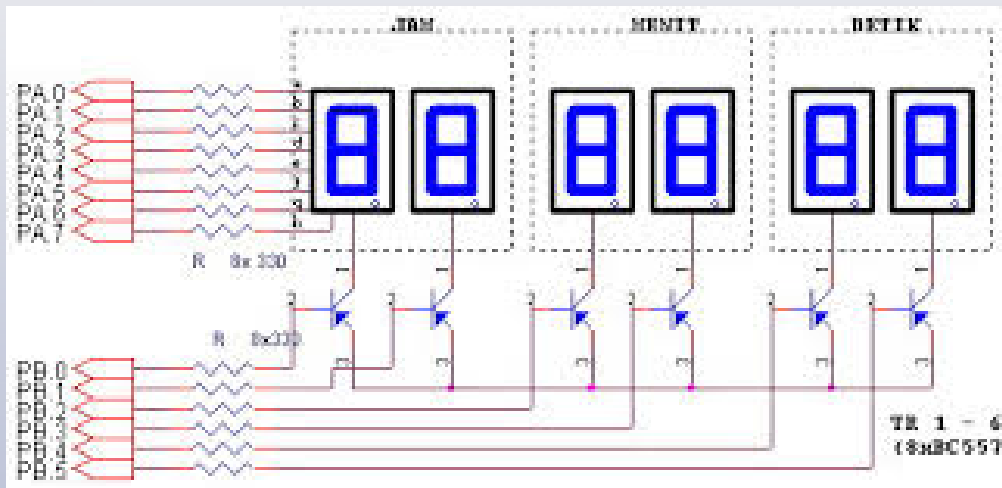
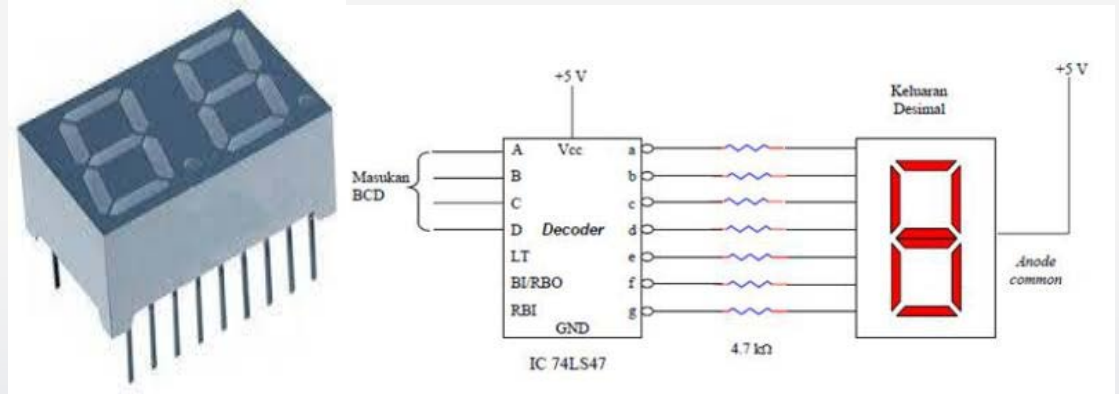
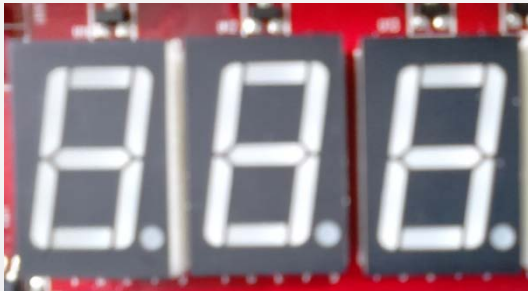


Sistem Mikrokontroler FE UDINUS

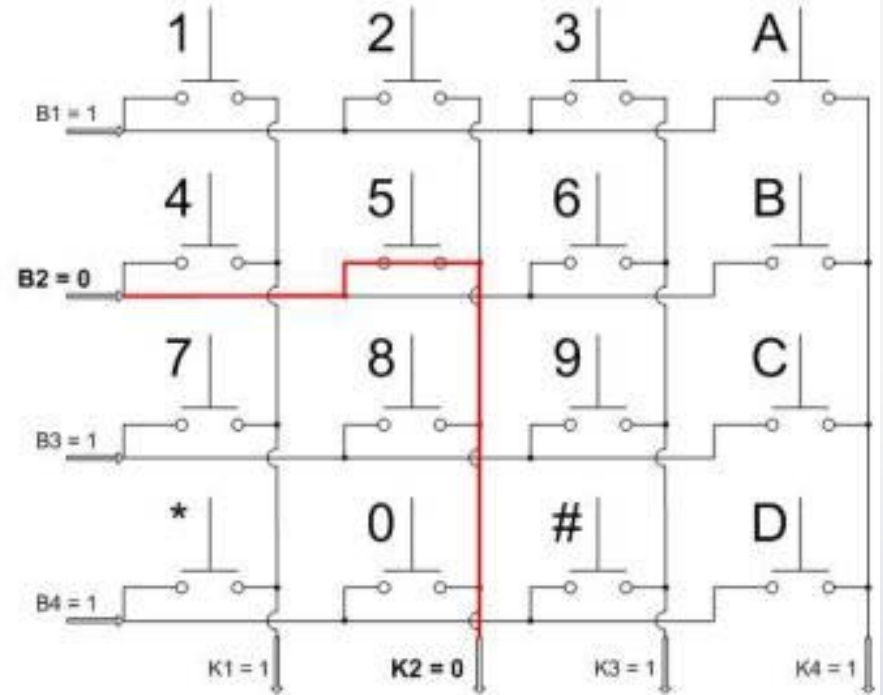
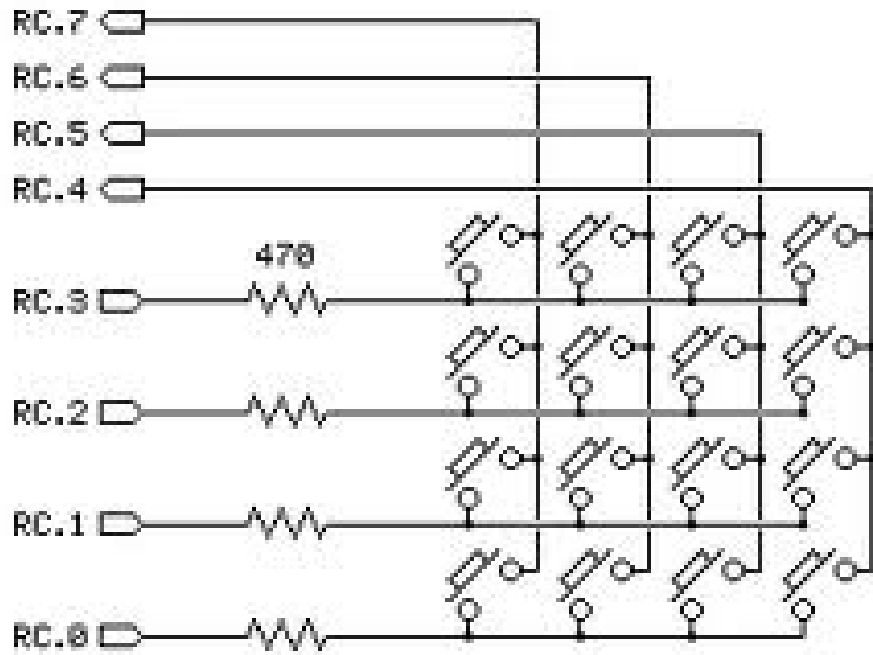


7 Segment



Desimal	MASUKAN						BI/ RBO	KELUARAN						
	LT	RBI	D	C	B	A		a	b	c	d	e	f	g
0	H	H	L	L	L	H	H	ON	ON	ON	ON	ON	ON	OFF
1	H	X	L	L	H	L	H	OFF	ON	ON	OFF	OFF	OFF	OFF
2	H	X	L	L	H	L	H	ON	ON	OFF	ON	ON	OFF	ON
3	H	X	L	L	H	H	H	ON	ON	ON	ON	OFF	OFF	ON
4	H	X	L	H	L	L	H	OFF	ON	ON	OFF	OFF	ON	ON
5	H	X	L	H	L	H	H	ON	OFF	ON	ON	OFF	ON	ON
6	H	X	L	H	H	L	H	OFF	OFF	ON	ON	ON	ON	ON
7	H	X	L	H	H	H	H	ON	ON	ON	OFF	OFF	OFF	OFF
8	H	X	H	L	L	L	H	ON	ON	ON	ON	ON	ON	ON
9	H	X	H	L	L	H	H	ON	ON	ON	OFF	OFF	ON	ON
BI	X	X	X	X	X	X	L	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RBI	H	L	L	L	L	L	L	OFF	OFF	OFF	OFF	OFF	OFF	OFF
LT	H	X	X	X	X	X	H	ON	ON	ON	ON	ON	ON	ON





Contoh

CodeWizardAVR - untitled.cwp

File Edit Help

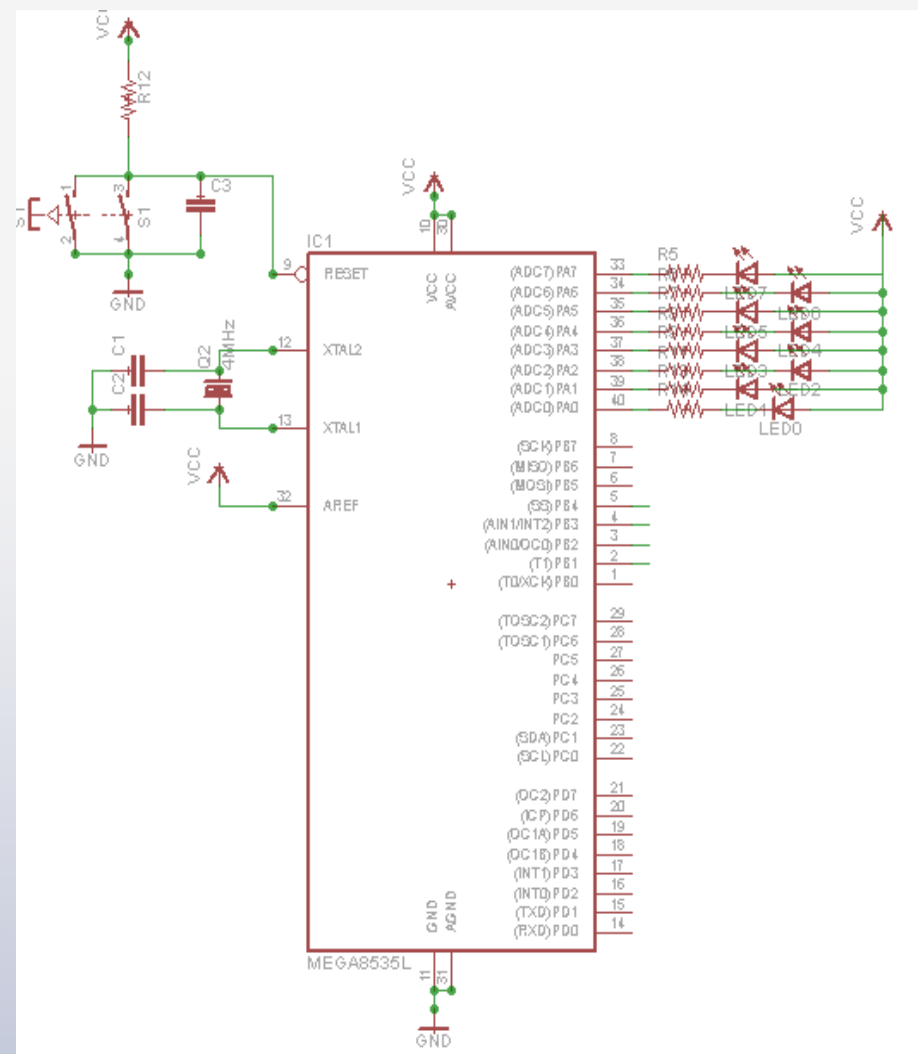
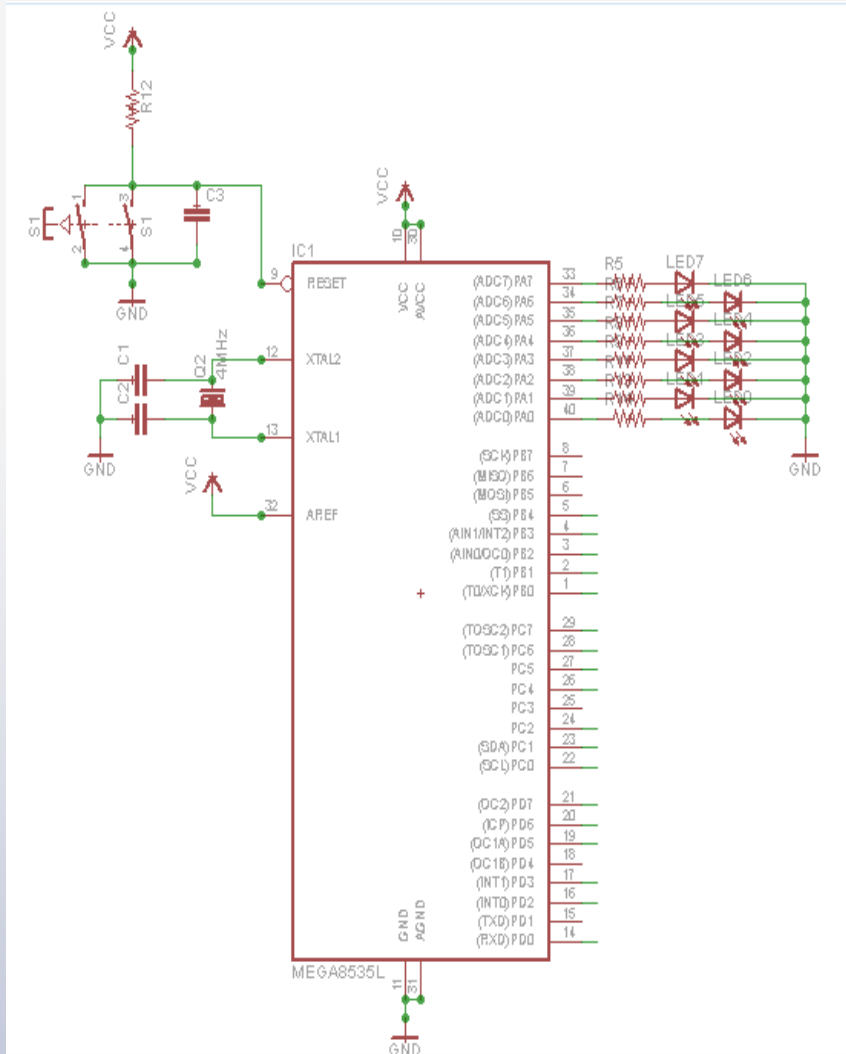
USART Analog Comparator ADC SPI
I2C 1 Wire 2 Wire (I2C)
LCD Bit-Banged Project Information
Chip Ports External IRQ Timers

Port A	Port B	Port C	Port D
Data Direction			
Bit 0 Out	0	0	Bit 0
Bit 1 In	P	P	Bit 1
Bit 2 In	P	P	Bit 2
Bit 3 Out	1	1	Bit 3
Bit 4 In	T	T	Bit 4
Bit 5 In	T	T	Bit 5
Bit 6 In	T	T	Bit 6
Bit 7 In	T	T	Bit 7

Program Preview

```
1 #include <mega8535.h>
2
3 // Declare your global variables here
4
5 void main(void)
6 {
7 // Declare your local variables here
8
9 // Input/Output Ports initialization
10 // Port A initialization
11 // Func7=In Func6=In Func5=In Func4=
12 // State7=T State6=T State5=T State4=
13 PORTA=0x00;
14 DDRA=0x00;
15
16 // Port B initialization
17 // Func7=In Func6=In Func5=In Func4=
18 // State7=T State6=T State5=T State4=
19 PORTB=0x0E;
20 DDRB=0x09;
21
22 // Port C initialization
23 // Func7=In Func6=In Func5=In Func4=
24 // State7=T State6=T State5=T State4=
25 PORTC=0x00;
26 DDRC=0x00;
27
28 // Port D initialization
29 // Func7=In Func6=In Func5=In Func4=
30 // State7=T State6=T State5=T State4=
31 PORTD=0x00;
32 DDRD=0x00;
33
34 // Timer/Counter 0 initialization
35 // Clock source: System Clock
36 // Clock value: Timer 0 Stopped
37 // Mode: Normal top=FFh
```





```

PORTA=0xFF;
DDRA=0xFF;

```

```

PORTA=0x00;
DDRA=0xFF;

```



```

97  OCR2=0x00;
98
99  // External Interrupt(s) initialization
100 // INT0: Off
101 // INT1: Off
102 // INT2: Off
103 MCUCR=0x00;
104 MCUCSR=0x00;
105
106 // Timer(s)/Counter(s) Interrupt(s) initialization
107 TIMSK=0x00;
108
109 // Analog Comparator initialization
110 // Analog Comparator: Off
111 // Analog Comparator Input Capture by Timer/Counter 1: Off
112 ACSR=0x80;
113 SFIOR=0x00;
114
115 while (1)
116 {
117     // Place your code here
118
119 }
120
121

```

PORTA=0xFF;

Output pada port A akan bernilai “1”

PORTA=0x00;

Output pada port A akan bernilai “0”




```
Notes a.c
4 Automatic Program Generator
5 © Copyright 1998-2009 Pavel Haiduc, HP InfoTech s.r.l. |
6 http://www.hpinfotech.com
7
8 Project :
9 Version :
10 Date : 9/24/2014
11 Author : NeVaDa
12 Company : Semarang
13 Comments:
14
15
16 Chip type : ATmega8535
17 Program type : Application
18 AVR Core Clock frequency: 11.059200 MHz
19 Memory model : Small
20 External RAM size : 0
21 Data Stack size : 128
22 *****/
23
24 #include <mega8535.h>
25
26 // Declare your global variables here
27
28 void main(void)
29 {
30 // Declare your local variables here
```

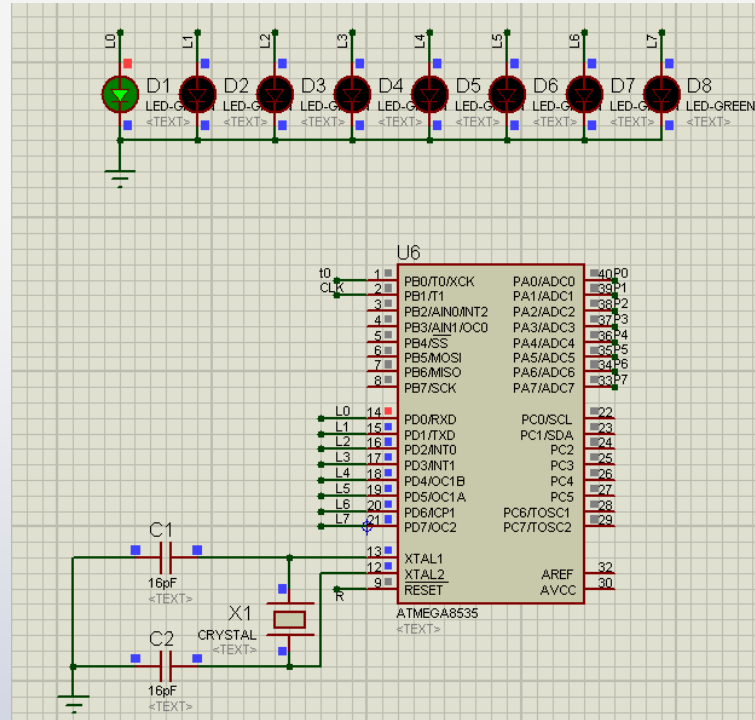
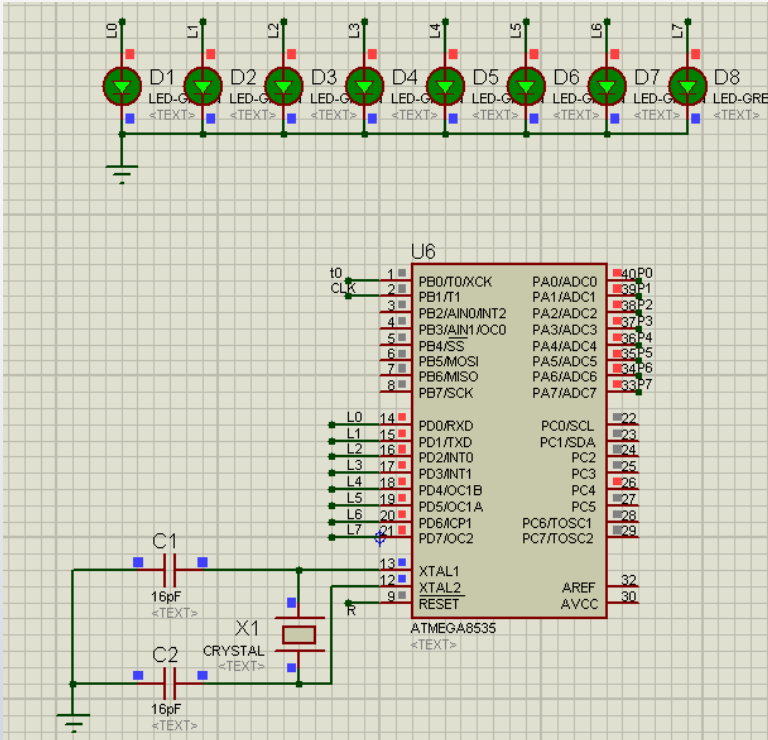


Led nyala-mati

```
while (1)
{
// Place your code here
PORTC=0xFF;
delay_ms(500);
};
}
```

```
13  Comments:
14
15
16  Chip type           : ATmega16
17  Program type        : Application
18  AVR Core Clock frequency: 11.000000 MHz
19  Memory model         : Small
20  External RAM size    : 0
21  Data Stack size     : 256
22  *****/
23
24  #include <mega16.h>
25  #include <delay.h>
26
27  // Declare your global variables here
28
29  void main(void)
30  {
31  // Declare your local variables here
32
33  // Input/Output Ports initialization
34  // Port A initialization
35  // Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
36  // State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
37  PORTA=0xFF;
38  DDRA=0xFF;
39
```



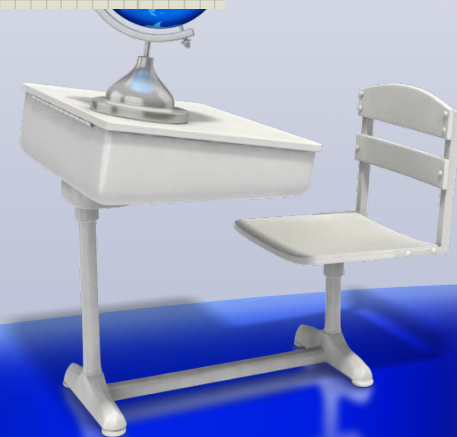


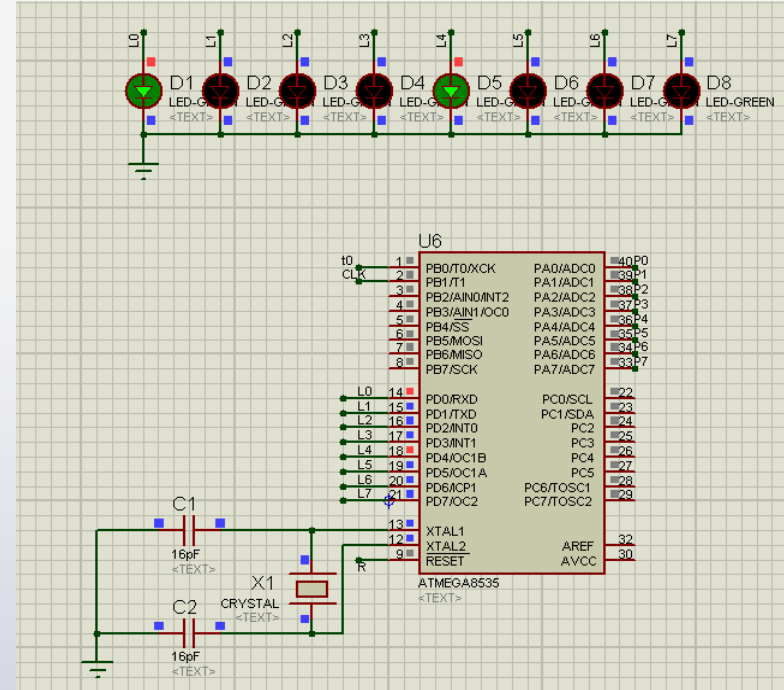
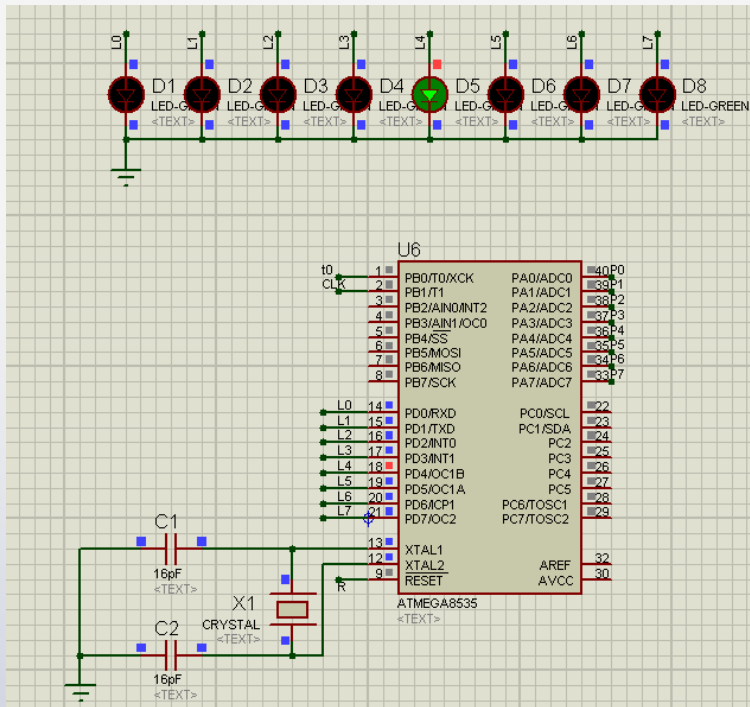
while (1)

```
{
// Place your code here
PORTC=0xFF;
};
```

while (1)

```
{
// Place your code here
PORTC=0x01;
};
```





while (1)

{

// Place your code here

PORTC=0x10;

};

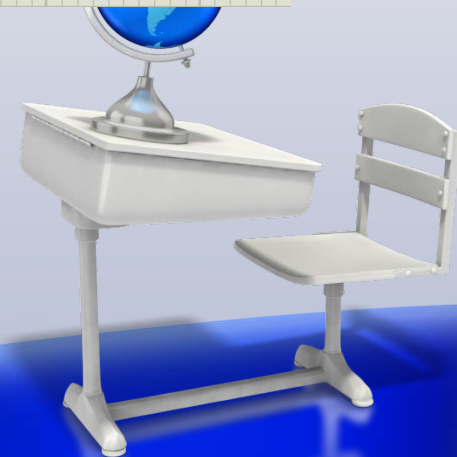
while (1)

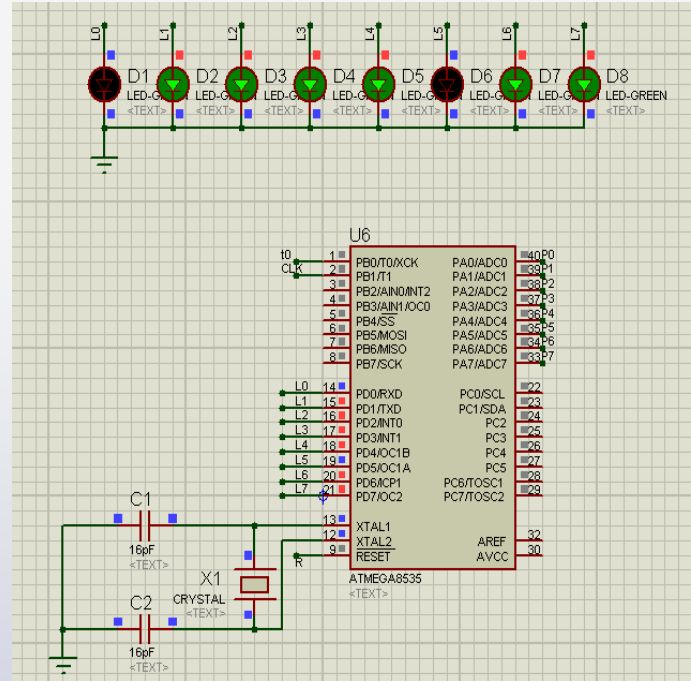
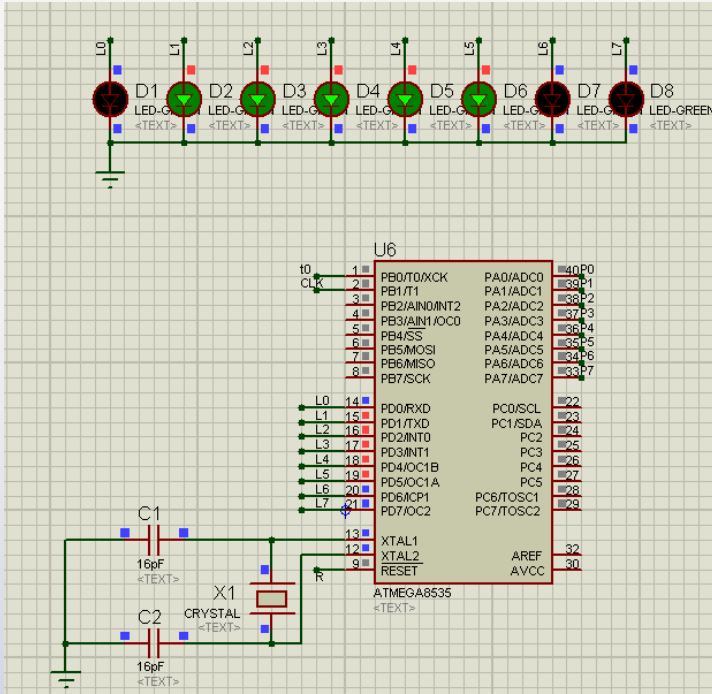
{

// Place your code here

PORTC=0x01;

};





```
while (1)
```

```
{
```

```
// Place your code here
```

```
PORTC=0x3E;
```

```
};
```

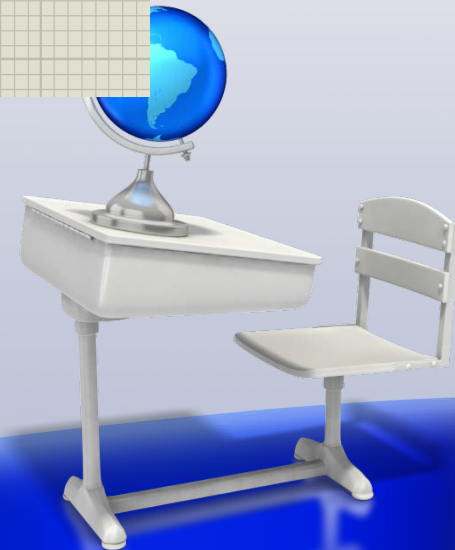
```
while (1)
```

```
{
```

```
// Place your code here
```

```
PORTC=0xDE;
```

```
};
```



```
while (1)
```

```
{  
PORTD=0x01;  
delay_ms(500);  
PORTD=0x02;  
delay_ms(500);  
PORTD=0x04;  
delay_ms(500);  
PORTD=0x08;  
delay_ms(500);  
PORTD=0x10;  
delay_ms(500);  
PORTD=0x20;  
delay_ms(500);  
PORTD=0x40;  
delay_ms(500);  
PORTD=0x80;  
delay_ms(500);
```

```
while (1)
```

```
{  
PORTD= 1;  
delay_ms(250);  
PORTD= 2;  
delay_ms(250);  
PORTD= 4;  
delay_ms(250);  
PORTD= 8;  
delay_ms(250);  
PORTD= 16;  
delay_ms(250);  
PORTD= 32;  
delay_ms(250);  
PORTD= 64;  
delay_ms(250);  
PORTD= 128;  
};delay_ms(250);  
}  
  
};
```

```
while (1)
```

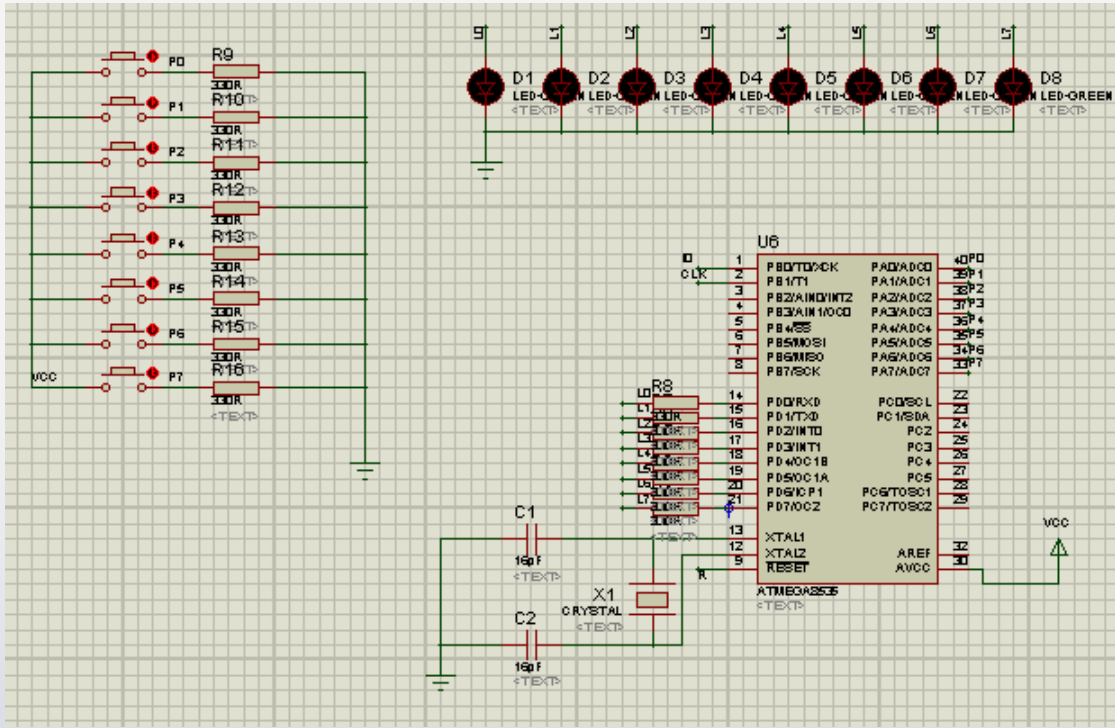
```
{  
PORTD=0b00000001;  
delay_ms(100);  
PORTD=0b00000010;  
delay_ms(100);  
PORTD=0b00000100;  
delay_ms(100);  
PORTD=0b00001000;  
delay_ms(100);  
PORTD=0b00010000;  
delay_ms(100);  
PORTD=0b00100000;  
delay_ms(100);  
PORTD=0b01000000;  
delay_ms(100);  
PORTD=0b10000000;  
delay_ms(100);  
  
};
```



```
while (1)
{
/* if (kanan ==0b00000001) kanan = 0b10000000; // geser kekiri
else kanan >>= 1;
PORTD = kanan;
delay_ms(100); */

if (kanan ==0b00000001) kanan = 0b10000000; //geser kekanan
else kiri <<= 1;
PORTD = kiri;
delay_ms(100);
};
}
```





```

while (1)
{
  // Place your code here
  PORTD=PINA;
};
}

```




```

while (1)
{
    if(PINA.0==1) {PORTD=0x18;}

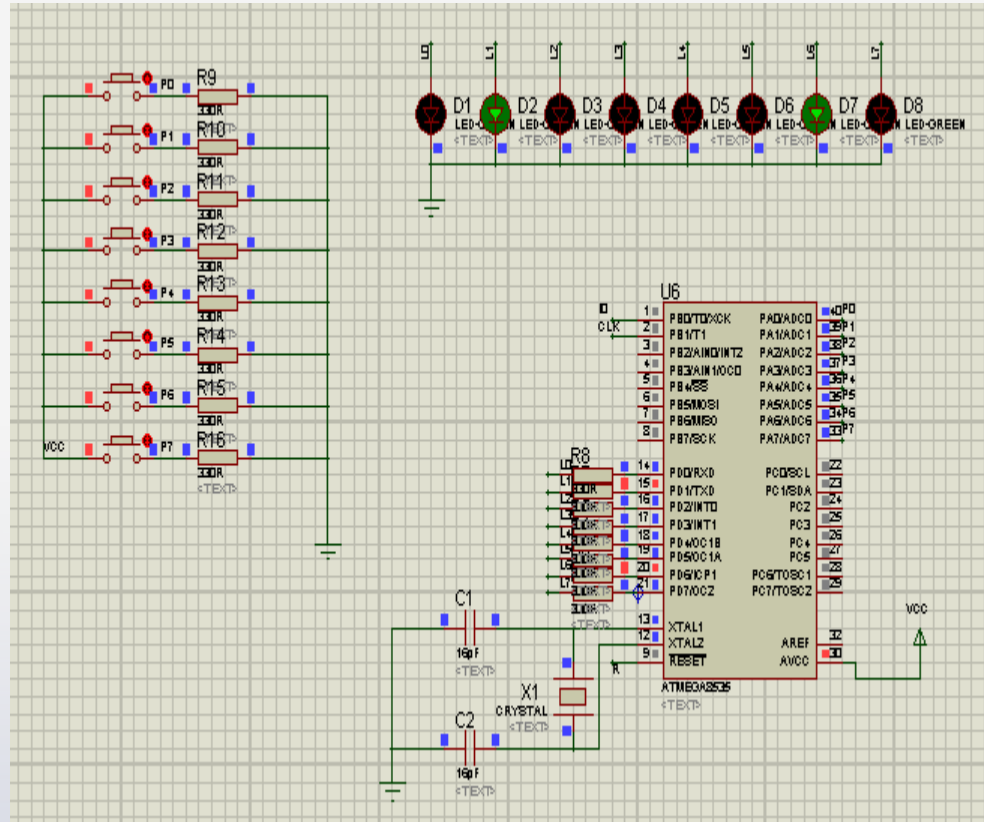
    if(PINA.1==1) {PORTD=0xFF;}

    if(PINA.2==1) {PORTD=0x42;}

    if(PINA.3==1) {PORTD=0x61;}

} }

```





TERIMA KASIH

