

```
#include <reg51.h>
```

```
//----- GENERATE SQUARE WAVE-----//
```

```
void main ()
```

```
{
```

```
    P1 = 0X00; //CONVERT PORT P1 AS OUTPUT
```

```
    while(1)
```

```
    {
```

```
        P1 = 0XFF;
```

```
        my_delay();
```

```
        P1 = 0X00;
```

```
        my_delay();
```

```
    }
```

```
}
```

```
void my_delay()
```

```
{
```

```
    int i;
```

```
    for(i=0;i<10000;i++);
```

```
}
```

```
#include <REG51.h>
```

```
//----- GENERATE TRAINGULAR WAVE-----//
```

```
void delay_ramp(unsigned int time)
```

```
{
```

```
    unsigned int i,j;
```

```
    for(i=time;i>0;i--)
```

```
    {
```

```
        for(j=0;j<10;j++);
```

```
    }
```

```
}
```

```
void send_dac(unsigned int dat)
```

```
{
```

```
    P1 = dat;
```

```
}
```

```
void main(void)

{

    unsigned int a,state=0xff;


    while(1)
    {

        // rising ramp edge
        for(a=0x0;a<0xFF;a++)
        {

            send_dac(a);

            delay_ramp(1);

        }

        // falling ramp edge
        for(a=0xFF;a>0;a--)
        {

            send_dac(a);

            delay_ramp(1);

        }

    }

}
```