// C programming of WDT to reset the system from infinite loop

```
#include <lpc17xx.h>
#include <stdint.h>

void delay(uint32_t i)
{
   uint32_t x;
          for(x=0;x<=i;x++);

}

int main(void)
{
          LPC_GPIO0->FIODIR =0xffffffff;

          LPC_WDT->WDCLKSEL = 1;//set clk source to pclk
          LPC_WDT->WDTC = 0x0007ffff;//100000000/16; // For 139msec delay
          LPC_WDT->WDMOD = 0x03;// Watchdog interrupt enable with watchdog reset
          LPC_WDT->WDFEED = 0xAA;
          LPC_WDT->WDFEED = 0x55;
          while(1)
          {
          LPC_GPIO0->FIOPIN =0xffffffff;
          delay(300000);
  LPC_GPIO0->FIOPIN =0x00000000;
          delay(300000);

          while(1);           //infinite loop
  }
}
```

// C programming of WDT to reset the system after time-out

```
#include <lpc17xx.h>
void delay_ms(uint32_t j)
{  uint32_t x,i;
        for(i=0;i<j;i++)
        {   for(x=0; x<6000; x++);// loop to generate 1 milisecond delay
        }}
int main(void)
{  LPC_GPIO0->FIODIR |=(3<<0);// P0.0,P0.1 as outputs for LEDs
        if ((LPC_WDT->WDMOD >> 2) & 1)
        {LPC_GPIO0->FIOSET |=(1<<1);//IO0SET = 0x00000002;  /* P0.1 LED ON */
                delay_ms(3000);  /* Indicate Watchdog Reset using LED at P0.1 */
          LPC_GPIO0->FIOCLR |=(1<<1);
                delay_ms(2000);}
        LPC_WDT->WDCLKSEL = 1;//set clk source to pclk
        LPC_WDT->WDTC = 0x0007ffff;//100000000/16; // For 139msec delay
        LPC_WDT->WDMOD = 0x03;// Watchdog interrupt enable with watchdog reset
        LPC_WDT->WDFEED = 0xAA;
        LPC_WDT->WDFEED = 0x55;
        LPC_GPIO0->FIOSET |=(1<<0);//IO0SET = 0x00000001;   /* P0.0 LED ON */
        delay_ms(50);
        LPC_GPIO0->FIOCLR |=(1<<0);//IO0CLR = 0x00000001;   /* P0.0 LED OFF */
        delay_ms(50);
        LPC_WDT->WDFEED = 0xAA;
        LPC_WDT->WDFEED = 0x55;
        LPC_GPIO0->FIOSET |=(1<<0);//IO0SET = 0x00000001;   /* P0.0 LED ON */
        delay_ms(55);
        LPC_GPIO0->FIOCLR |=(1<<0);//IO0CLR = 0x00000001;   /* P0.0 LED OFF */
        delay_ms(55);
        LPC_WDT->WDFEED = 0xAA;
        LPC_WDT->WDFEED = 0x55;
        LPC_GPIO0->FIOSET |=(1<<0);//IO0SET = 0x00000001;   /* P0.0 LED ON */
        delay_ms(60);
        LPC_GPIO0->FIOCLR |=(1<<0);//IO0CLR = 0x00000001;   /* P0.0 LED OFF */
        delay_ms(60);
        LPC_WDT->WDFEED = 0xAA;
        LPC_WDT->WDFEED = 0x55;
        LPC_GPIO0->FIOSET |=(1<<0);//IO0SET = 0x00000001;   /* P0.0 LED ON */
        delay_ms(65);
        LPC_GPIO0->FIOCLR |=(1<<0);//IO0CLR = 0x00000001;   /* P0.0 LED OFF */
        delay_ms(65);
        LPC_WDT->WDFEED = 0xAA;
        LPC_WDT->WDFEED = 0x55;
        delay_ms(70);
        LPC_GPIO0->FIOCLR |=(1<<0);//IO0CLR = 0x00000001;   /* P0.0 LED OFF */
        delay_ms(70);
```

```
        LPC_WDT->WDFEED = 0xAA; LPC_WDT->WDFEED = 0x55; return 0; }
```

// C programming of WDT to reset the system by monitoring WDT flag

```
#include <lpc17xx.h>
#include <stdint.h>

void delay(uint32_t i)
{
   uint32_t x;
        for(x=0;x<=i;x++);

}

int main(void)
{
        LPC_GPIO0->FIODIR =0xffffffff;

        LPC_WDT->WDCLKSEL = 1;//set clk source to pclk
        LPC_WDT->WDTC = 0x0007ffff;//100000000/16; // For 139msec delay
        LPC_WDT->WDMOD = 0x03;// Watchdog interrupt enable with watchdog reset
  LPC_WDT->WDFEED = 0xAA;
        LPC_WDT->WDFEED = 0x55;

        if(LPC_WDT->WDTC & 4)
        {
                LPC_GPIO0->FIOSET |=(1<<1);
          delay(300000);
                LPC_GPIO0->FIOCLR |=(1<<1);
          delay(200000);
        }
        while(1)
        {
        LPC_GPIO0->FIOSET |=(1<<0);
        delay(50000);
         LPC_GPIO0->FIOCLR |=(1<<0);
        delay(50000);

  }
}
```

// C programming of WDT with feeding without any malfunction

```
#include <lpc17xx.h>
#include <stdint.h>

void delay(uint32_t i)
{
   uint32_t x;
          for(x=0;x<=i;x++);

}

int main(void)
{
          LPC_GPIO0->FIODIR =0xffffffff;
          LPC_GPIO1->FIODIR &=~(1<<0);

          LPC_WDT->WDCLKSEL = 1;//set clk source to pclk
          LPC_WDT->WDTC = 0x0007ffff;//100000000/16; // For 139msec delay
          LPC_WDT->WDMOD = 0x03;// Watchdog interrupt enable with watchdog reset
          LPC_WDT->WDFEED = 0xAA;
          LPC_WDT->WDFEED = 0x55;

          if(LPC_WDT->WDTC & 4)
          {
                    LPC_GPIO0->FIOSET |=(1<<1);
            delay(300000);
                    LPC_GPIO0->FIOCLR |=(1<<1);
            delay(200000);
          }
          while(1)
          {
          LPC_GPIO0->FIOSET |=(1<<0);
          delay(50000);
           LPC_GPIO0->FIOCLR |=(1<<0);
          delay(50000);

          LPC_WDT->WDFEED = 0xAA;
          LPC_WDT->WDFEED = 0x55;
 }
}
```