/\*

This program turns on and off a LED on pin 13 each 1 second using an internal timer

\*/

int timer=0;

bool state=0;

void setup() {

//put your setup code here, to run once:

pinMode(LED\_BUILTIN,OUTPUT);

TCCR0A=(1<<WGM01); //Set the CTC mode

OCR0A=0xF9; //Value for ORC0A for 1ms. 0XF9=249 in decimal.

TIMSK0|=(1<<OCIE0A); //Set the interrupt request

sei(); //Enable interrupt

TCCR0B|=(1<<CS01); //Set the prescaler equal to 1/64

TCCR0B|=(1<<CS00);

}

void loop(){

//put your main code here, to run repeatedly:

digitalWrite(LED\_BUILTIN,state);

}

ISR(TIMER0\_COMPA\_vect){ //This is the interrupt request

timer++;

if(timer>=1000){

state=!state;

timer=0;

}

}

void setup () {

//OC0A is connected to pin 6 of Arduino

pinMode(6, OUTPUT);

TCCR0A=0; //Reset Timer 0 control registers

TCCR0B=0;

// Load 79 to generate 100 kHz sq.wave

OCR0A = 79;

// Toggle OC0A on compare match, mode 2 (CTC),No prescalar, Start the timer

TCCR0A = (1 << COM0A0)|(1<<WGM01); //TCCR0A=01000010

TCCR0B = (1 << CS00); //TCCR1B=00000001

}

void loop() {

}

void setup () {

//OC0B is connected to pin 5 of Arduino

pinMode(5, OUTPUT);

TCCR0A=0; //Reset Timer 0 control registers

TCCR0B=0;

// Load 79 to generate 100 kHz sq.wave

OCR0A = 79;

// Toggle OC0B on compare match, mode 2 (CTC),No prescalar, Start the timer

TCCR0A = (1 << COM0B0)|(1<<WGM01); //TCCR0A=00010010

TCCR0B = (1 << CS00); //TCCR1B=00000001

}

void loop() {

}

void setup () {

//OC0B is connected to pin 5 of Arduino

//OC0A is connected to pin 6 of Arduino

pinMode(5, OUTPUT);

pinMode(6, OUTPUT);

TCCR0A=0; //Reset Timer 0 control registers

TCCR0B=0;

// Load 79 to generate 100 kHz sq.wave

OCR0A = 79;

// Toggle OC0A and OC0B on compare match, mode 2 (CTC),No prescalar, Start the timer

TCCR0A = (1 << COM0A0)|(1 << COM0B0)|(1<<WGM01); //TCCR0A=01010010

TCCR0B = (1 << CS00); //TCCR1B=00000001

}

void loop() {

}

void setup () {

//OC1A is connected to pin 9 of Arduino

pinMode(9, OUTPUT);

TCCR1A=0; //Reset Timer 1 control registers

TCCR1B=0;

// Load 799 to generate 10 kHz sq.wave

OCR1A = 799;

// Toggle OC1A on compare match, mode 4 (CTC),No prescalar, Start the timer

TCCR1A = (1 << COM1A0);

TCCR1B = (1<<WGM12) | (1 << CS10); //TCCR1B=00001001

}

void loop() {

}

void setup () {

//OC1A is connected to pin 9 of Arduino

pinMode(9, OUTPUT);

TCCR1A=0; //Reset Timer 1 control registers

TCCR1B=0;

// Load 799 to generate 10 kHz sq.wave

ICR1 = 799;

// Toggle OC1A on compare match, mode 12 (CTC),No prescalar, Start the timer

TCCR1A = (1 << COM1A0);

TCCR1B = (1<<WGM13) | (1<<WGM12) | (1 << CS10); //TCCR1B=00011001

}

void loop() {

}

void setup () {

//OC1B is connected to pin 10 of Arduino

pinMode(10, OUTPUT);

TCCR1A=0; //Reset Timer 1 control registers

TCCR1B=0;

// Load 799 to generate 10 kHz sq.wave

ICR1 = 799;

// Toggle OC1B on compare match, mode 12 (CTC),No prescalar, Start the timer

TCCR1A = (1 << COM1B0);

TCCR1B = (1<<WGM13) | (1<<WGM12) | (1 << CS10); //TCCR1B=00011001

}

void loop() {

}

void setup () {

//OC1A is connected to pin 9 of Arduino

//OC1B is connected to pin 10 of Arduino

TCCR1A=0; //Reset Timer 1 control registers

TCCR1B=0;

pinMode(9, OUTPUT);

pinMode(10, OUTPUT);

// Load 799 to generate 10 kHz sq.wave

ICR1 = 799;

// Toggle OC1A and OC1B on compare match, mode 12 (CTC),No prescalar, Start the timer

TCCR1A = (1 << COM1A0)|(1 << COM1B0);

TCCR1B = (1<<WGM13) | (1<<WGM12) | (1 << CS10); //TCCR1B=00011001

}

void loop() {

}

void setup () {

//OC2A is connected to pin 11 of Arduino.

pinMode(11, OUTPUT);

TCCR2A=0; //Reset Timer 2 control registers

TCCR2B=0;

// Load 79 to generate 100 kHz sq.wave

OCR2A = 79;

// Toggle OC2A on compare match, mode 2 (CTC),No prescalar, Start the timer

TCCR2A = (1 << COM2A0)|(1<<WGM21); //TCCR2A=01000010

TCCR2B = (1 << CS20); //TCCR2B=00000001

}

void loop() {

}

volatile long i=0;

void setup () {

TCCR2A=0; //Reset Timer 2 control registers

TCCR2B=0;

OCR2A = 255;

TIMSK2|=(1<<OCIE2A); //Set the interrupt request

sei(); //Enable interrupt

// Toggle OC2A on compare match, mode 2 (CTC),No prescalar, Start the timer

TCCR2A = (1<<WGM21); //TCCR2A=00000010

TCCR2B = (1 << CS22)|(1 << CS21)|(1 << CS20); //TCCR1B=00000111

Serial.begin(9600);

}

void loop() {

Serial.println(i);

}

ISR(TIMER2\_COMPA\_vect){ //This is the interrupt request

i++;

}