//www.elegoo.com

//2016.12.12

// define the LED digit patterns, from 0 - 9

// 1 = LED on, 0 = LED off, in this order:

// 74HC595 pin Q0,Q1,Q2,Q3,Q4,Q5,Q6,Q7

// Mapping to a,b,c,d,e,f,g of Seven-Segment LED

byte seven\_seg\_digits[10] = { B11111100, // = 0

B01100000, // = 1

B11011010, // = 2

B11110010, // = 3

B01100110, // = 4

B10110110, // = 5

B10111110, // = 6

B11100000, // = 7

B11111110, // = 8

B11100110 // = 9

};

// connect to the ST\_CP of 74HC595 (pin 3,latch pin)

int latchPin = 3;

// connect to the SH\_CP of 74HC595 (pin 4, clock pin)

int clockPin = 4;

// connect to the DS of 74HC595 (pin 2)

int dataPin = 2;

void setup() {

// Set latchPin, clockPin, dataPin as output

pinMode(latchPin, OUTPUT);

pinMode(clockPin, OUTPUT);

pinMode(dataPin, OUTPUT);

}

// display a number on the digital segment display

void sevenSegWrite(byte digit) {

// set the latchPin to low potential, before sending data

digitalWrite(latchPin, LOW);

// the original data (bit pattern)

shiftOut(dataPin, clockPin, LSBFIRST, seven\_seg\_digits[digit]);

// set the latchPin to high potential, after sending data

digitalWrite(latchPin, HIGH);

}

void loop() {

// count from 9 to 0

for (byte digit = 10; digit > 0; --digit) {

delay(1000);

sevenSegWrite(digit - 1);

}

// suspend 4 seconds

delay(3000);

}