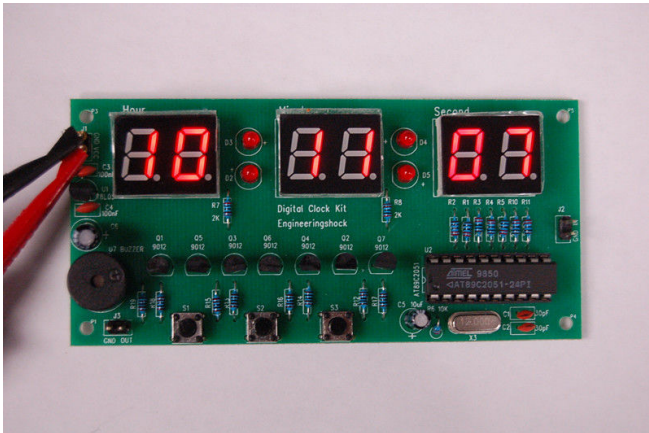


## Digital clock kits

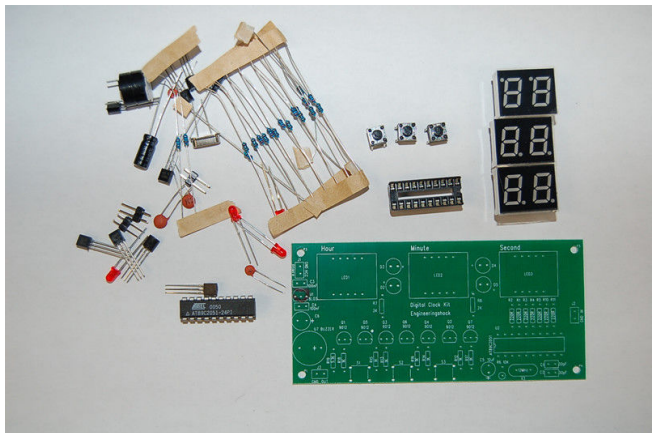
Digital clock kit shows the time on large 7-segment LED displays.

This is an electronic kit rated skill level 5 (advanced). User assembly of components and soldering is required.

Digital Clock Module (assembled)



Digital Clock KIT(DIY parts)



### Features

- Digital clock
- Counter
- Time alarm
- Stopwatch

### Buttons

- S1: function selection button
- S2: extend function button
- S3: adjustment button

## Functions:

**Clock setting:** Press S1 once, you will see clock display flashing, Press S2 once to add 1 hour, Press S3 one to add 1 minute.

**Alarm setting:** Press S1 twice, you will see colon keep light on, Press S2 once to add 1 hour, Press S3 once to add 1 minute. It will turn off alarm when hour value over 23 and you will see --□--□--. Alarm will keep the buzzer on for 3 seconds.

**Counter setting:** Press S1 three times, you will see colon keep off and number show 0. Press S2 to select digit from lower end to higher end, then press S3 to add 1. It will start to count when you press S2 6<sup>th</sup> times.

**Stopwatch:** Press S1 four times, you will see 00□00□00, colon keep on, press S2 once to start stopwatch, press S2 again to stop it. Press S3 to clear numbers.

## Digital Clock Part lists:

items	Part description	Part number	items	Part description	Part number
1	AT89C2051	U2	27	BUTTON	S3
2	78L05	U1	28	Resistor 220 Ohm	R1
3	12MHz Oscillator	X3	29	Resistor 220 Ohm	R2
4	2 digit 7segment display	LED1	30	Resistor 220 Ohm	R3
5	2 digit 7segment display	LED2	31	Resistor 220 Ohm	R4
6	2 digit 7segment display	LED3	32	Resistor 220 Ohm	R5
7	LED	D2	33	Resistor 220 Ohm	R10
8	LED	D3	34	Resistor 220 Ohm	R11
9	LED	D4	35	Resistor 1K Ohm	R12
10	LED	D5	36	Resistor 1K Ohm	R13
11	Buzzer	U7	37	Resistor 1K Ohm	R14
12	CAP 30pF	C1	38	Resistor 1K Ohm	R15
13	CAP 30pF	C2	39	Resistor 1K Ohm	R16
14	CAP 0.1uF (104)	C3	40	Resistor 1K Ohm	R17
15	CAP 0.1uF (104)	C4	41	Resistor 1K Ohm	R18
16	CAP 10uF	C5	42	Resistor 5.1K Ohm	R19
17	CAP 100uF	C6	43	Resistor 2K Ohm	R7
18	PNP 9012	Q1	44	Resistor 2K Ohm	R8
19	PNP 9012	Q2	45	Resistor 10K Ohm	R6
20	PNP 9012	Q3	46	2 pin connector	J1
21	PNP 9012	Q4	47	2 pin connector	J2
22	PNP 9012	Q5	48	2 pin connector	J3
23	PNP 9012	Q6	49	20pin DIP socket	-
24	PNP 9012	Q7	50	PCB 50mmx105mm	-
25	Button	S1			
26	Button	S2			

