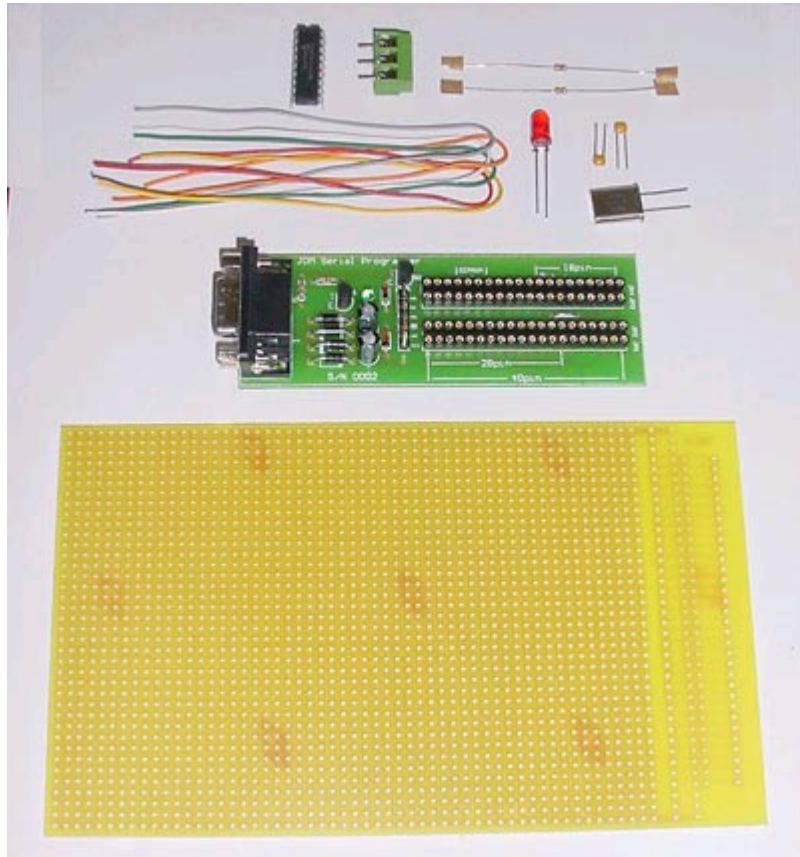# Getting started PIC16F84A kit
+
PIC programmer

Description :

The purpose of this demonstration is to control a LED with a PIC 16F84 microcontroller.

Once you get the Kit working, you will be able to make any project with Microchip microcontroller very quickly and easily which seems wordily to many people at the beginning.

This kit contains a PIC 16F84A-I/P chip, programmer and all other parts necessary to make the project.

Parts Used
 1x Test board
 1x PIC16F84A
 1x LED Diode
 1x 4 MHz Crystal Resonator
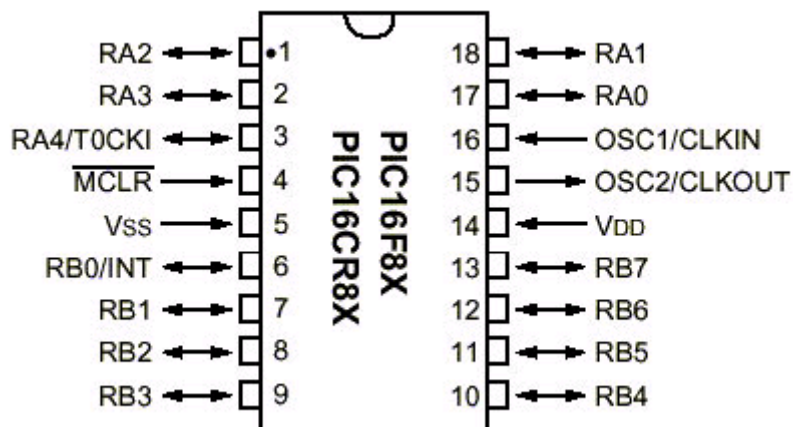 1x JDM PIC programmer
 and necessary parts

PIC16F84
The PIC 16F84 is an inexpensive yet very versatile MCU in the PIC family.
It features:
1K of Flash EEPROM
68 bytes of RAM
64 bytes of EEPROM data
operates at up to 10MHz
13 I/O pins
Only 35 instructions to learn
External Interrupt
Timer overflow Interrupt
High current sink/source

You can find complete documentation in the Data sheets from the Microchip
web site.

http://www.microchip.com

http://www.microchip.com/wwwproducts/Devices.aspx?dDocName=en010229

RA2	1	PIC16F8X PIC16CR8X	18	RA1
RA3	2		17	RA0
RA4/T0CKI	3		16	OSC1/CLKIN
$\overline{MCLR}$	4		15	OSC2/CLKOUT
Vss	5		14	VDD
RB0/INT	6		13	RB7
RB1	7		12	RB6
RB2	8		11	RB5
RB3	9		10	RB4

The Circuit
The circuit is very simple.
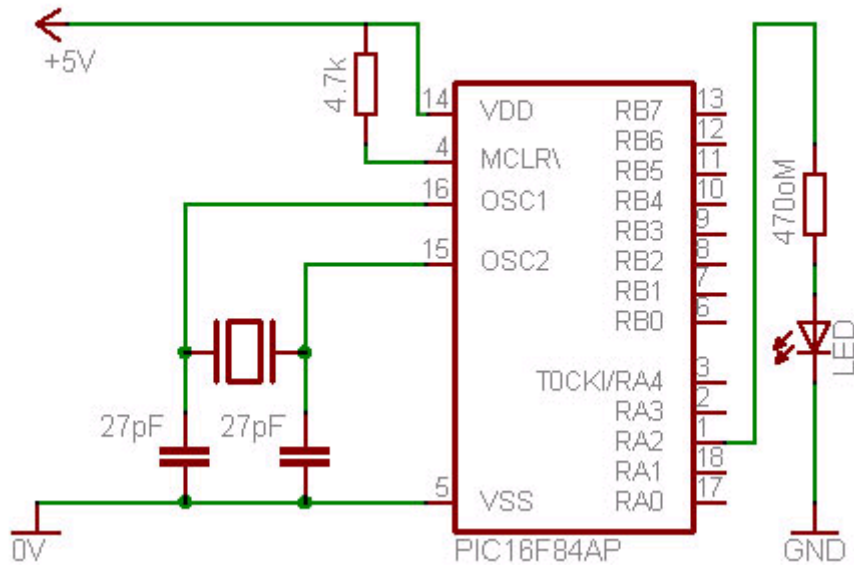
PIC programming
1. Insert PIC16F84 in programmer and connect to PC :
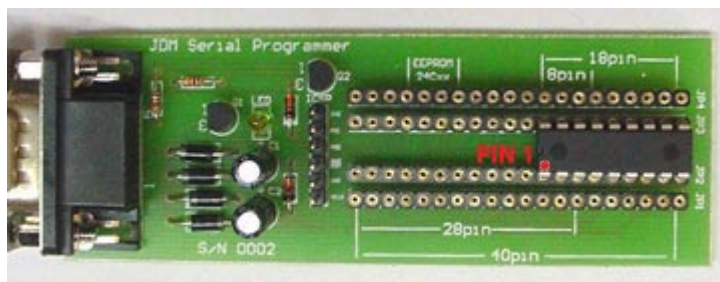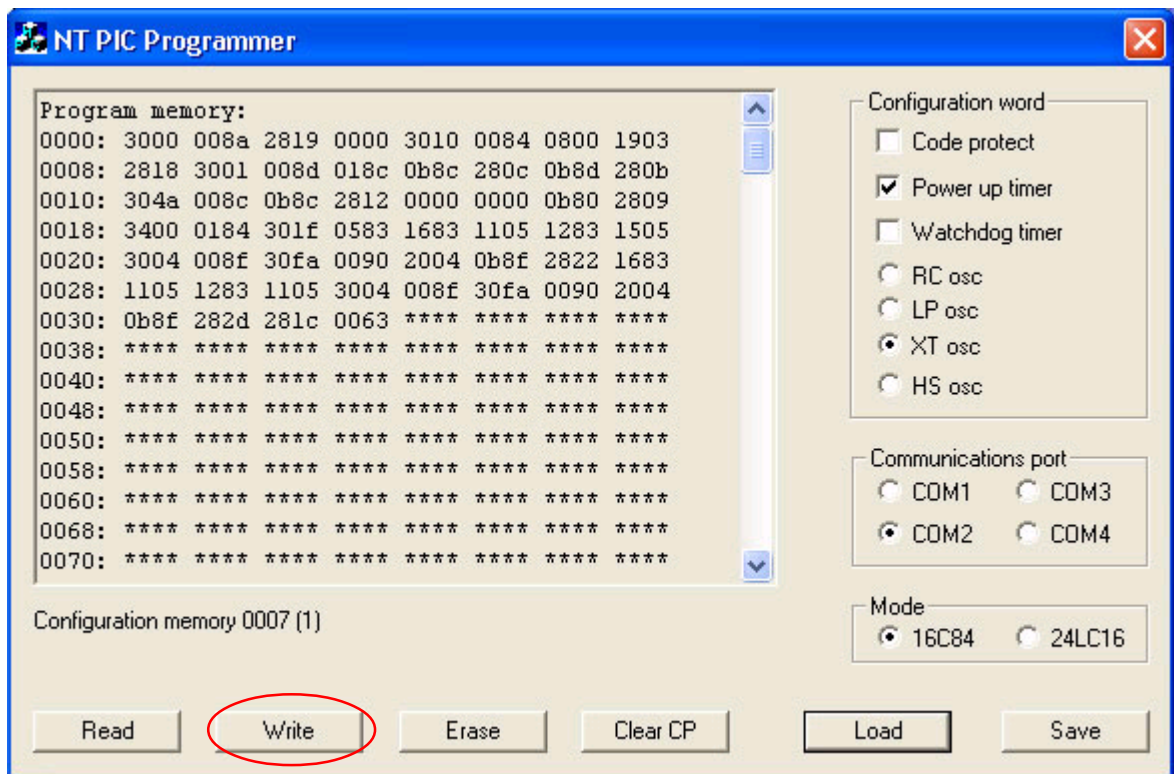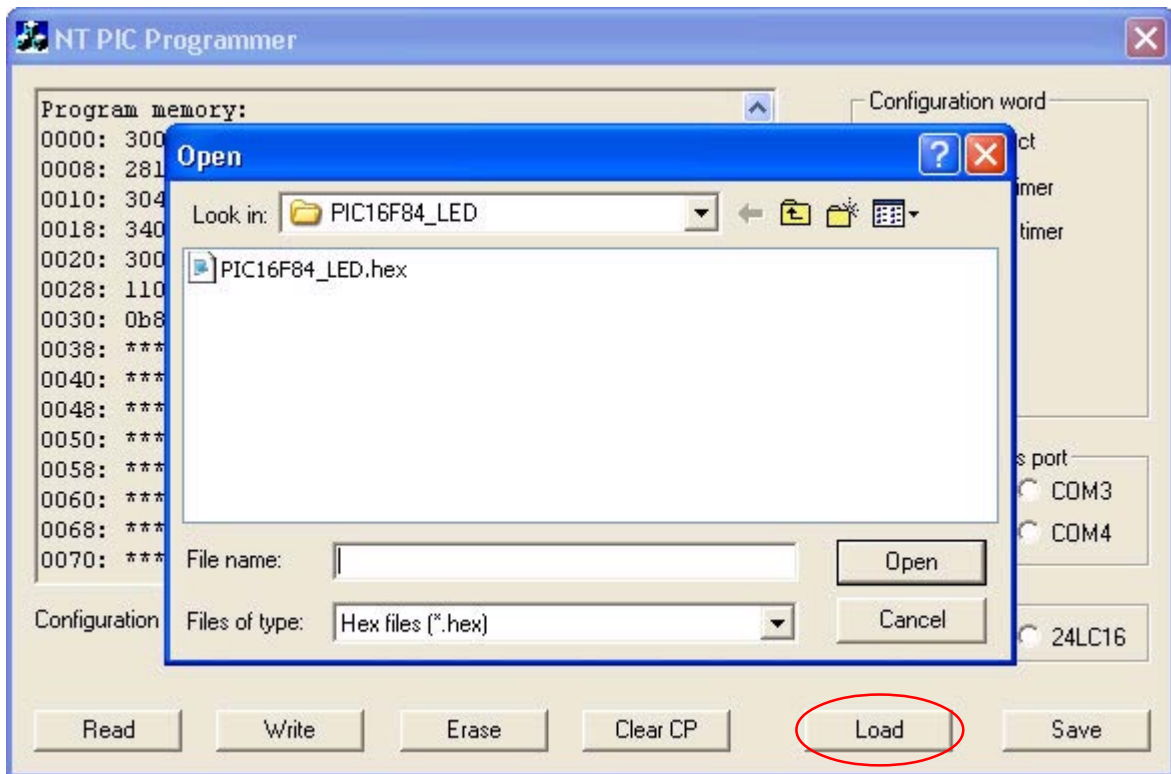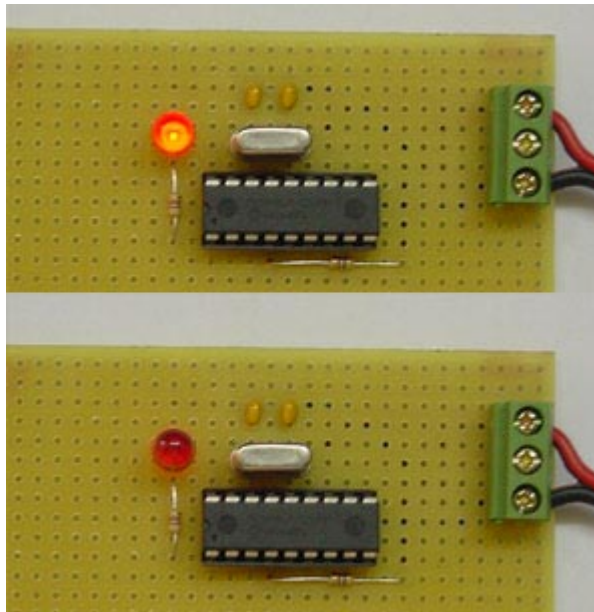

2 . Download software and HEX file :

http://www.sigma-shop.com/software/pic16f84_kit/pic16f84_kit.zip

3 . Program PIC with HEX code :

NT PIC Programmer

Program memory:
```
0000: 300
0008: 281
0010: 304
0018: 340
0020: 300
0028: 110
0030: 0b8
0038: ***
0040: ***
0048: ***
0050: ***
0058: ***
0060: ***
0068: ***
0070: ***
```

Open

Look in: 📁 PIC16F84_LED

📄 PIC16F84_LED.hex

File name: [   ]   Open

Files of type: Hex files (*.hex)   Cancel

Configuration word

Configuration

Read | Write | Erase | Clear CP | (Load) | Save

NT PIC Programmer

Program memory:
```
0000: 3000 008a 2819 0000 3010 0084 0800 1903
0008: 2818 3001 008d 018c 0b8c 280c 0b8d 280b
0010: 304a 008c 0b8c 2812 0000 0000 0b80 2809
0018: 3400 0184 301f 0583 1683 1105 1283 1505
0020: 3004 008f 30fa 0090 2004 0b8f 2822 1683
0028: 1105 1283 1105 3004 008f 30fa 0090 2004
0030: 0b8f 282d 281c 0063 **** **** **** ****
0038: **** **** **** **** **** **** **** ****
0040: **** **** **** **** **** **** **** ****
0048: **** **** **** **** **** **** **** ****
0050: **** **** **** **** **** **** **** ****
0058: **** **** **** **** **** **** **** ****
0060: **** **** **** **** **** **** **** ****
0068: **** **** **** **** **** **** **** ****
0070: **** **** **** **** **** **** **** ****
```

Configuration memory 0007 (1)

Configuration word
- ☐ Code protect
- ☑ Power up timer
- ☐ Watchdog timer
- ○ RC osc
- ○ LP osc
- ● XT osc
- ○ HS osc

Communications port
- ○ COM1   ○ COM3
- ● COM2   ○ COM4

Mode
- ● 16C84   ○ 24LC16

Read | (Write) | Erase | Clear CP | Load | Save

Flashing LED ... :)

Some projects with PIC16F84 :
http://www.best-microcontroller-projects.com/pic-projects.html
http://mondo-technology.com
http://www.electronics-lab.com/blog/?tag=pic16f84

Programmer manual :
http://www.sigma-shop.com/manuals/jdm_manual.pdf