

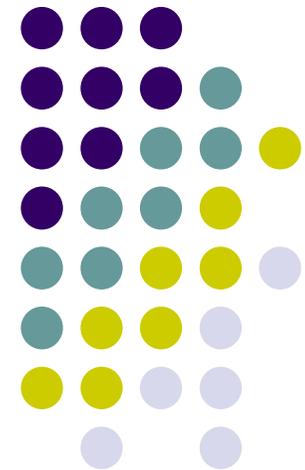
# VT168 Development Board User Manual

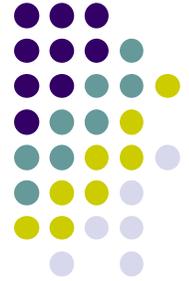
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# Features

- VT168 development board provides an easy way and efficient way of TV game development
- Both SRAM and Flash memory are available
- Easy erasing and programming of Flash memory
- I/O ports of VT168 on board
- AV port for TV set



# Bill of Materials

- Before proceeding please ensure that each of the items below are accounted for and available.

1. Main Board
2. COB of VT168
3. Romter
4. USB 2.0 cable
5. AC to DC 9V adapter
6. AV cable for TV set
7. Joystick

Note:

- a) Item 1 to 3 refer to next page.
- b) VRT doesn't offer item 5 to 7.

# Pictures of Materials



Romter



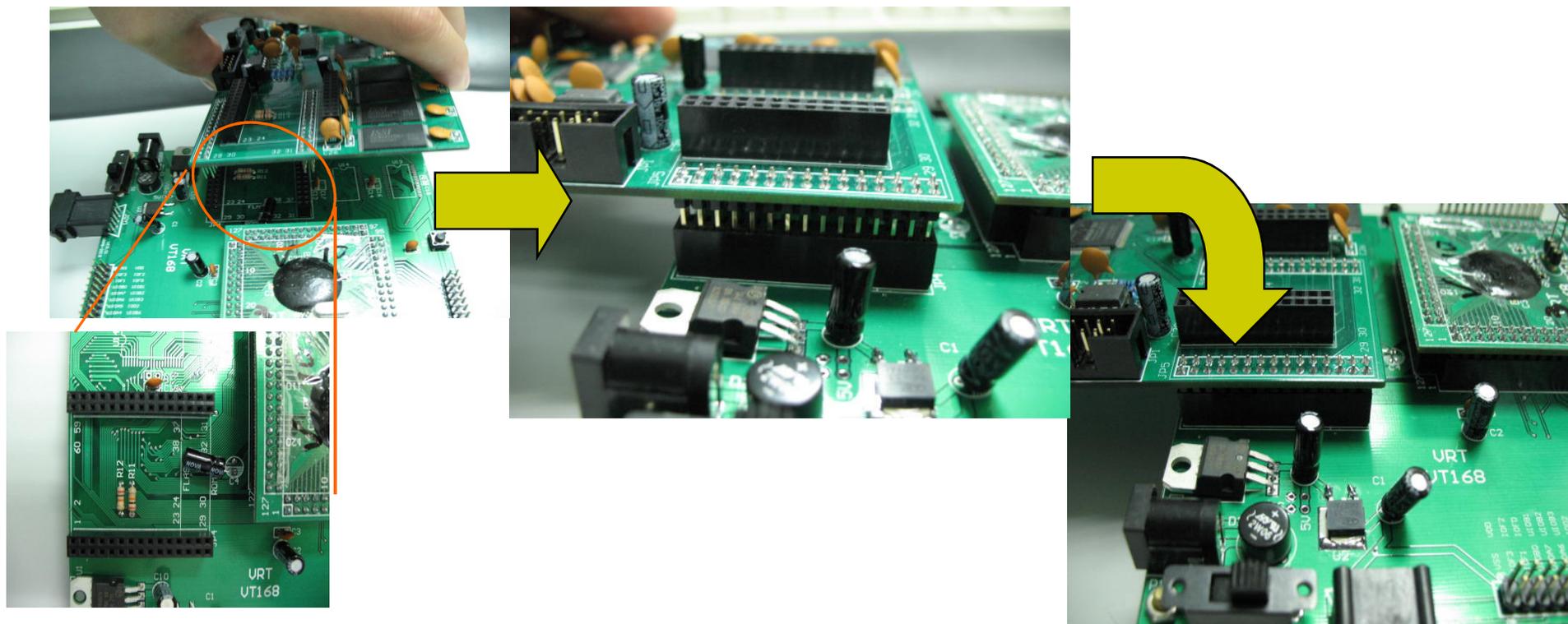
Main Board

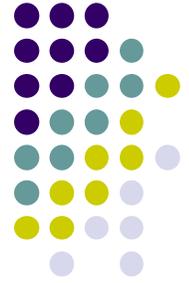
COB



# Assembly Steps: Step 1

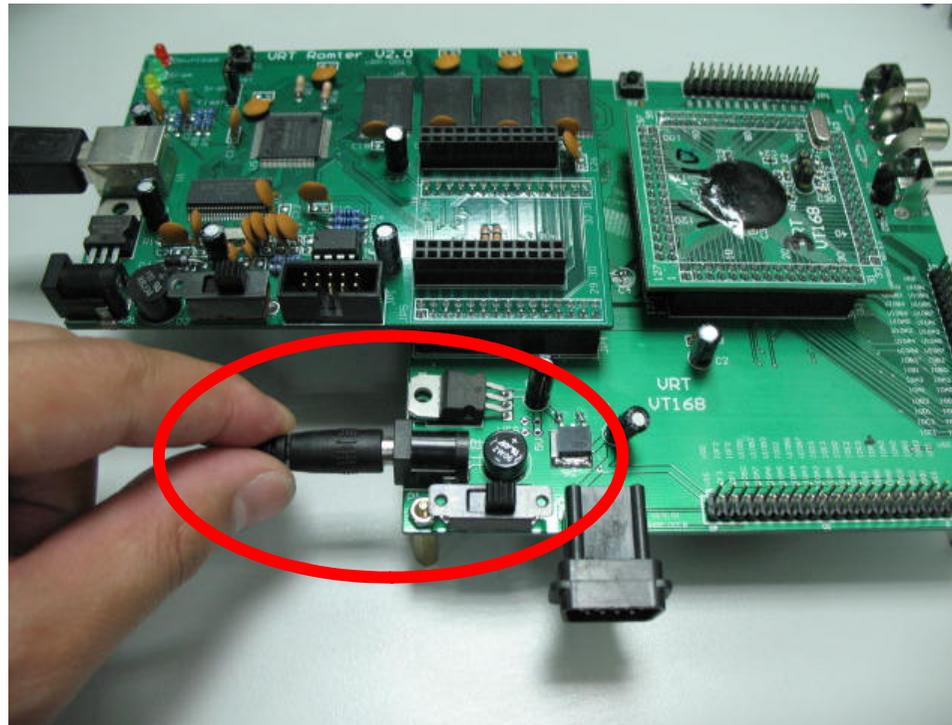
- Join the Romter with Main Board. Mount the JP5 of Romter on the JP4 of Main Board.

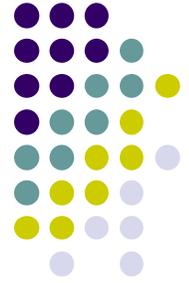




# Assembly Steps: Step 2

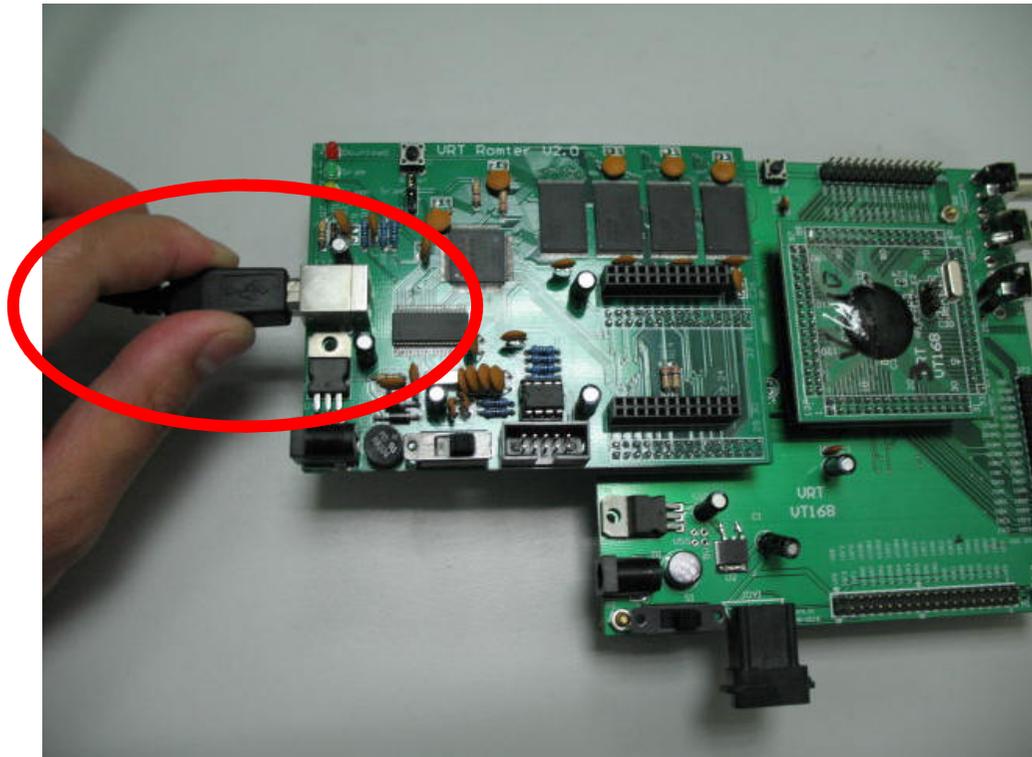
- Insert the plug of DC Adapter (+9V) into the DC power jack of Main Board.

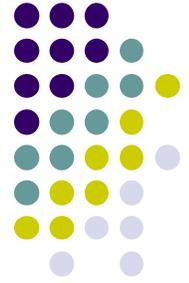




# Assembly Steps: Step 3

- Insert the plug of USB cable into the USB socket of Romter.





# Assembly Steps: Step 4

- Turn on the power switch on Main Board. The green LED on Romter will be lit.





# Assembly Steps: Step 5

- A new removable driver “VrtRomterV3” will be found in “My Computer” of Windows operating system.

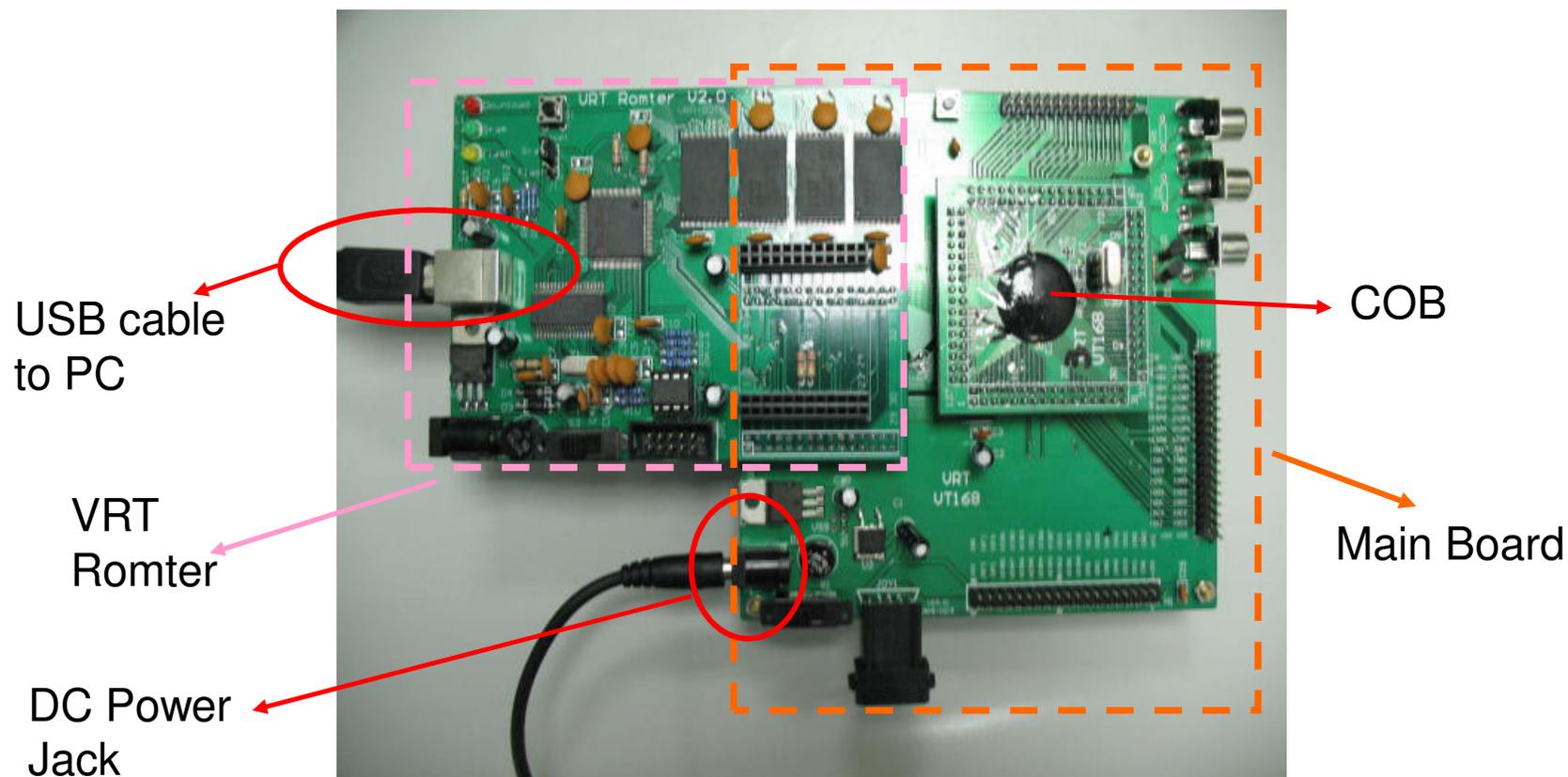


Left picture was took from the Windows System of Chinese version .



# Assembly Steps: Completed

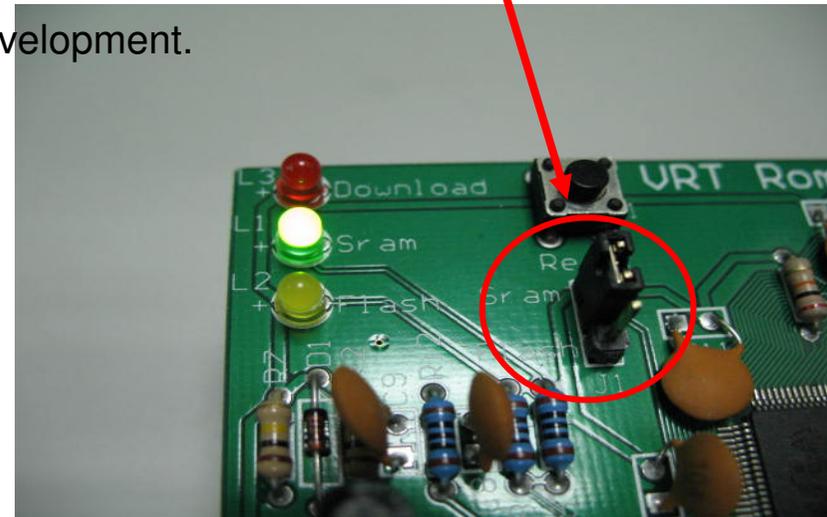
- Completed picture of VT168 Development Board.





# How to Use the Romter

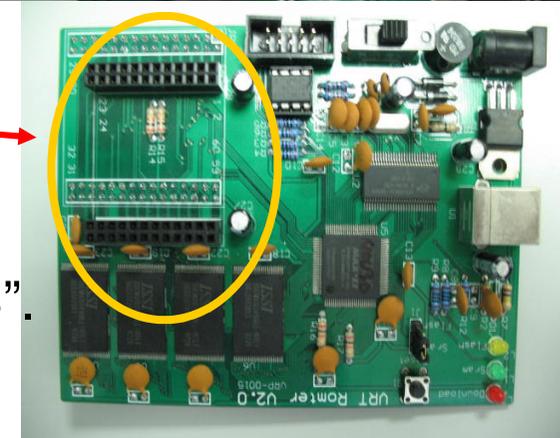
- Download your program from PC to Romter by USB cable
- Choice the type of memory
  - Set the jumper of memory type before turn on the DC power..
  - VRT Romter support two types of memory: SRAM and Flash.
  - Maximum memory size: 64M bits
  - Using SRAM: place a jumper on J1 to connect the center post to Sram post.
  - Using Flash: Place a jumper on J1 to connect the center post to Flash post.
  - VRT strongly suggests you to use the Sram for development.
- Rules of filename of your download file:
  - Base name: rom
  - Filename extension: bin



# Download to the SRAM of Romter



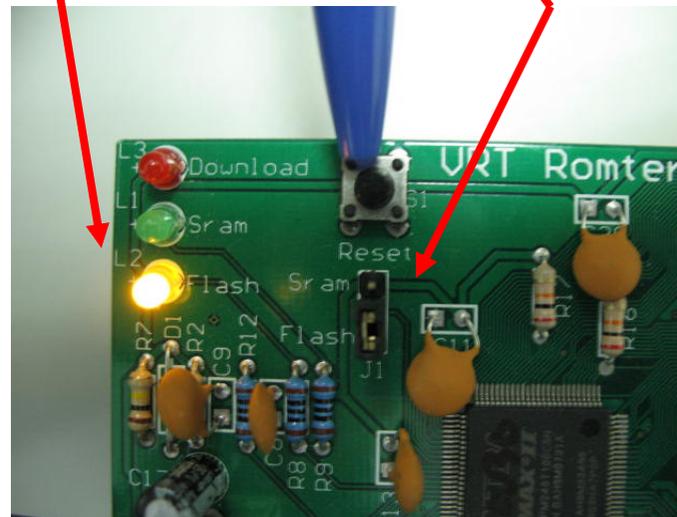
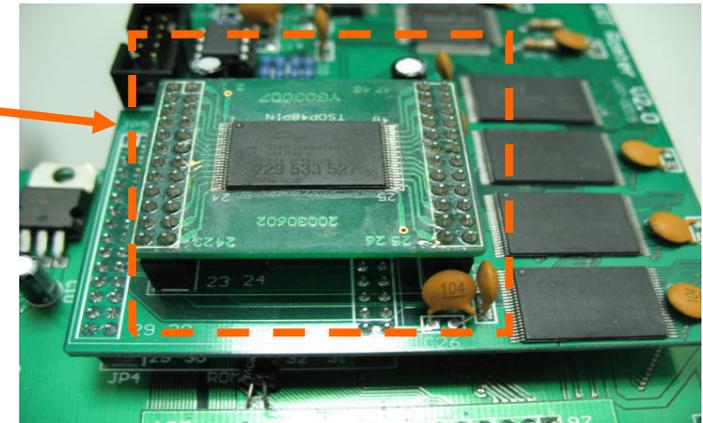
- Configure the Romter
  - Connect center post to Sram post by jumper
  - “Sram” LED (green) will be lit as power on.
  - Keep the U8 on Romter empty.
- Download to the SRAM of Romter
  - Copy “rom.bin” from PC to driver “VrtRomterV3”. The “download” LED (red) will twinkle as the download is in progress.



# Download to the Flash of Romter: Configure



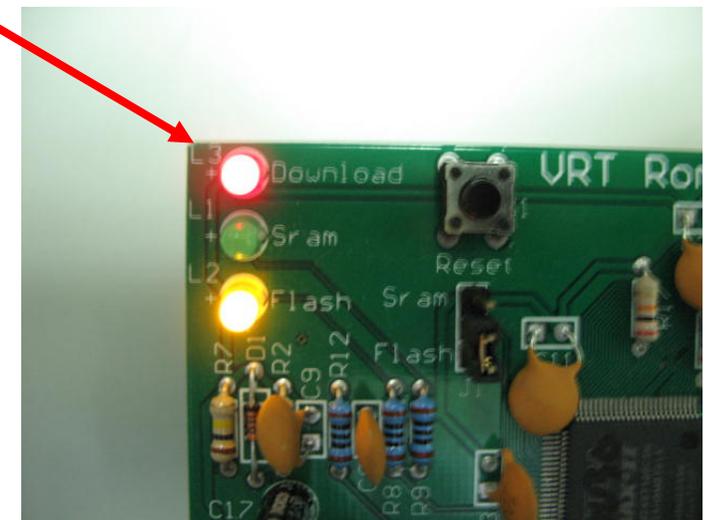
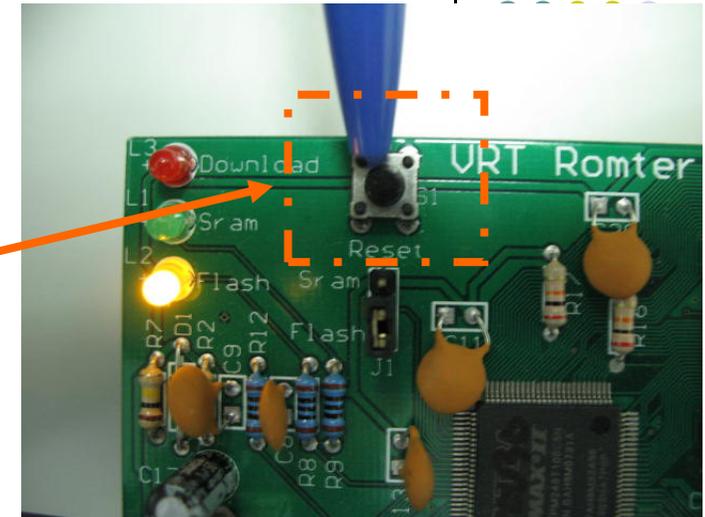
- Configure the Romter
  - Plug a Flash memory into the socket U8 on Romter.
  - Connect center post to the flash post by jumper.
  - Make sure the “flash” LED (yellow) is lit.



# Download to the Flash of Romter: Erase Flash



- Erasing Steps
  1. Press “reset” one time. The “VrtRomterV3” will disappear temporarily then come back.
  2. Copy “rom.bin” from PC to driver “VrtRomterV3”. The “download” LED (red) will twinkle as the erasing is in progress.
  3. The erasing time may take 30 seconds to 3 minutes depending on the manufacturer of flash memory.
  4. The flash must be erased completely before programming flash. It takes time but necessary.



# Download to the Flash of Romter: Program Flash



- Programming Steps
  1. Copy “rom.bin” from PC to driver “VrtRomterV3”.  
The “download” LED (red) will twinkle as it is programming the flash.
  2. The programming time may take 15 to 40 seconds depending on the size of your program.

