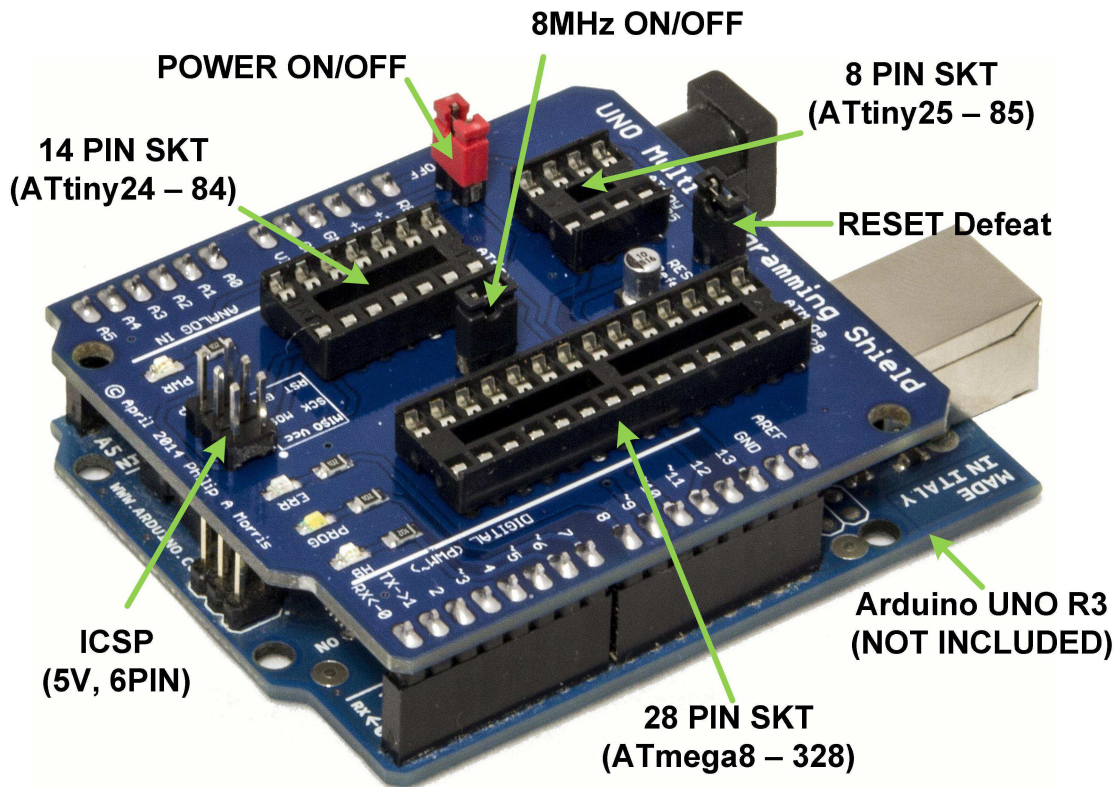


UNO Multi Programming Shield



Thank you for purchasing the **UNO Multi Programming Shield**. The photo above shows the layout, links and sockets available on the board and here is a brief description of their use:

- **ICSP Socket:** A standard 6 pin ICSP socket with a switchable 5Volt VTG output
- **14 PIN SKT:** A 14 pin DIL socket for ATTiny 14 pin AVR's using SPI programming
- **POWER ON/OFF:** Link to enable the 5Volt supply to the board and the ICSP socket
- **8MHz ON/OFF:** Link to enable the 8MHz clock signal
- **8 PIN SKT:** An 8 pin DIL socket for ATTiny 8 pin AVR's using SPI programming
- **RESET Defeat:** A Link to disable the RESET function on the Arduino UNO board
- **28 PIN SKT:** A 28 pin DIL socket for ATmega 28 pin AVR's using SPI programming

The LEDs on the board are:

- **PWR:** A bright LED to show that power is applied to the board**
- **ERR:** Indicates that an error has occurred during programming
- **PROG:** Indicates that data is being written to and read from the AVR
- **HB:** A pulsing "Heartbeat" to show that the software is idling correctly

For a more detailed explanation of the board, links, LEDs and use, go to our website at www.boardstuff.co.uk.

The **UNO Multi Programming Shield** is designed to work with a modified version of the "ArduinoISP" sketch supplied with the Arduino IDE. Once loaded with the software, your Arduino UNO becomes a full ISP programmer for the AVR devices specified. *The UNO Multi Programming Shield will work with the original ArduinoISP sketch but, the 8MHz clock signal will not be available and the Heartbeat LED will not light.*

Please take time to read the important information on the reverse of this sheet!

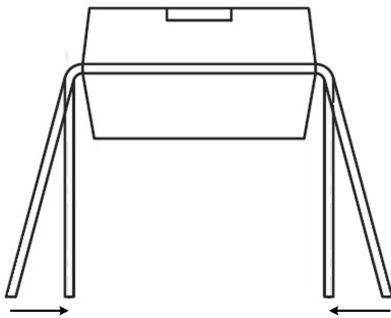
** Power **MUST NOT** be applied while AVR's are being inserted or removed from the sockets.

UNO Multi Programming Shield

Important DOs and DON'Ts:

- **Never** attach the UNO Multi Programming Shield to your Arduino UNO with power applied
- **Never** handle ANY Integrated Circuit by its pins
- **Never** insert or remove an AVR device from the programming shield when the **PWR LED** is lit*
- **Always** take care when inserting AVR devices into the programming shield sockets
- **It is NOT** necessary to fully insert the AVR device into the sockets on the programming shield. Simply, gently press the AVR device down into the socket until the pins are gripped, no more.

Forming the pins of the AVR device:



New AVR devices are supplied with their pins splayed as shown on the left. It is necessary to form the pins so that they are at right angles to the device body. This is how they should be formed for insertion into any socket, except a Zero Insertion Force (ZIF) socket, anyway. If you are unsure how to do this safely, go to our website at www.boardstuff.co.uk for further information.

Once the pins are correctly formed, the AVR device can be gently inserted into the correct socket on the programming shield. **DO NOT** fully press the AVR device into the socket. Press gently and evenly on the top of the AVR device body until resistance is felt in the socket.

Over insertion of an AVR device will make removal difficult and could lead to socket damage. To remove an AVR device from a socket once programmed, ensure that the PWR LED is off and then, if you can't lift it out with your fingers gripping each end of the chip, use a small flat bladed screwdriver to ease the AVR device from the socket.

If force is needed to remove the AVR device, it has been inserted too far into the socket.

Please remember that the **UNO Multi Programming Shield** is designed for light, occasional use only. **IT IS NOT a production programmer!**

Your peace of mind:

The **UNO Multi Programming Shield** is guaranteed for 1 year against faulty materials and/or workmanship. Should your **UNO Multi Programming Shield** develop a fault, we will replace/repair the board or refund the purchase price, or part thereof at our discretion but in line with current consumer legislation.

The **UNO Multi Programming Shield** IS **NOT** guaranteed against abuse, deliberate damage or use for any other purpose than that for which it was designed. Under the Distance Selling Regulations, if, upon receipt of your **UNO Multi Programming Shield** you decide that you do not want it, providing it has not been used, you can advise us within 7 days of the date of receipt and we will refund the purchase price and postage. **The cost of returning the board to us will not be refunded.**

The guarantee and refund rights under the Distance Selling Regulations only apply to purchases made within the United Kingdom.

. Your statutory rights are unaffected.

** Power **MUST NOT** be applied while AVR's are being inserted or removed from the sockets.

www.boardstuff.co.uk – unoboardstuff@gmail.com