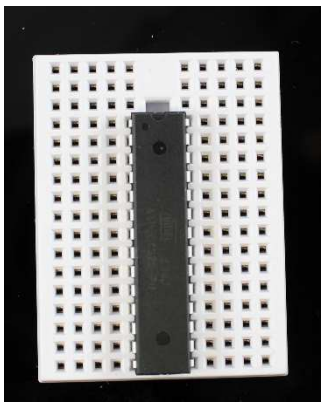
Arduino Compatible Breadboard Kit

PPARDBBKIT

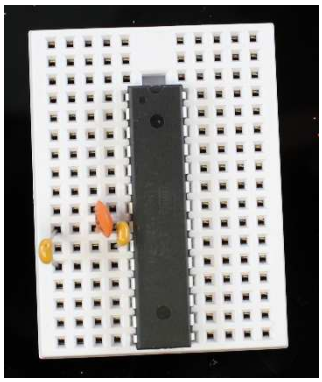


Mount the ATMEGA 328 chip

Note the notch at the top of the chip, this shows

where pin 1 is.

If you look at page 4 you can see the full pin mapping.

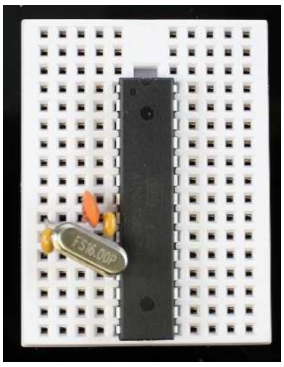


Place the capacitors like above

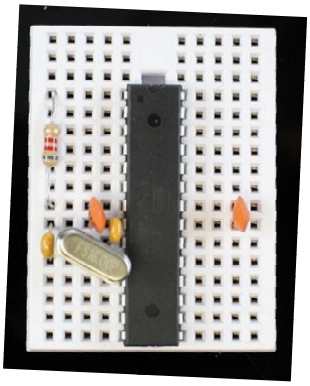
The capacitor marked 103 is between pins 7 & 8

The capacitors marked 220 are between pins 8 & 9

and pins 8 & 10



Mount the 16 Mhz crystal between pins 9 & 10

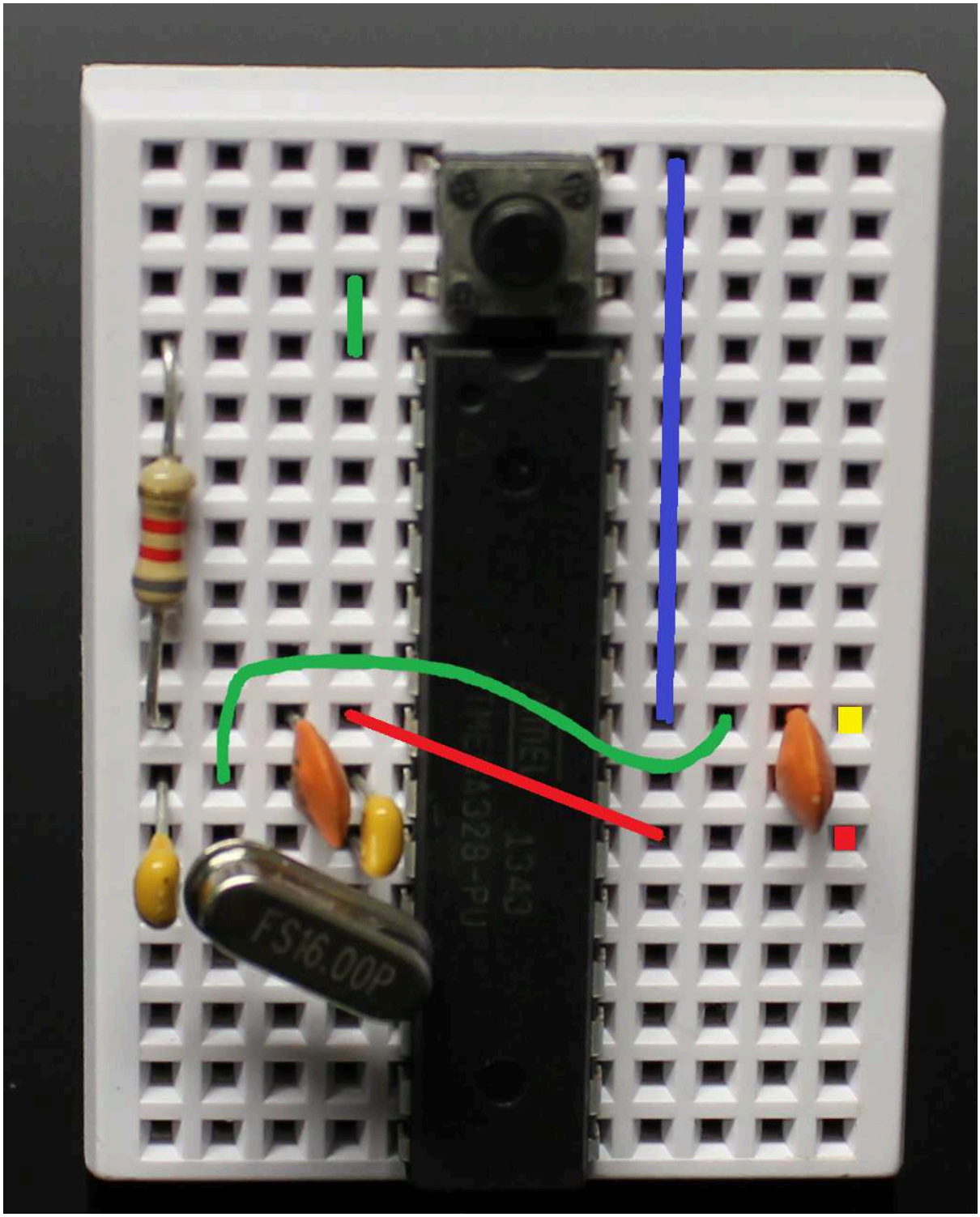


Connect the capacitor marked 103 between pins

21 & 22

And the resistor between pin 1 & 7

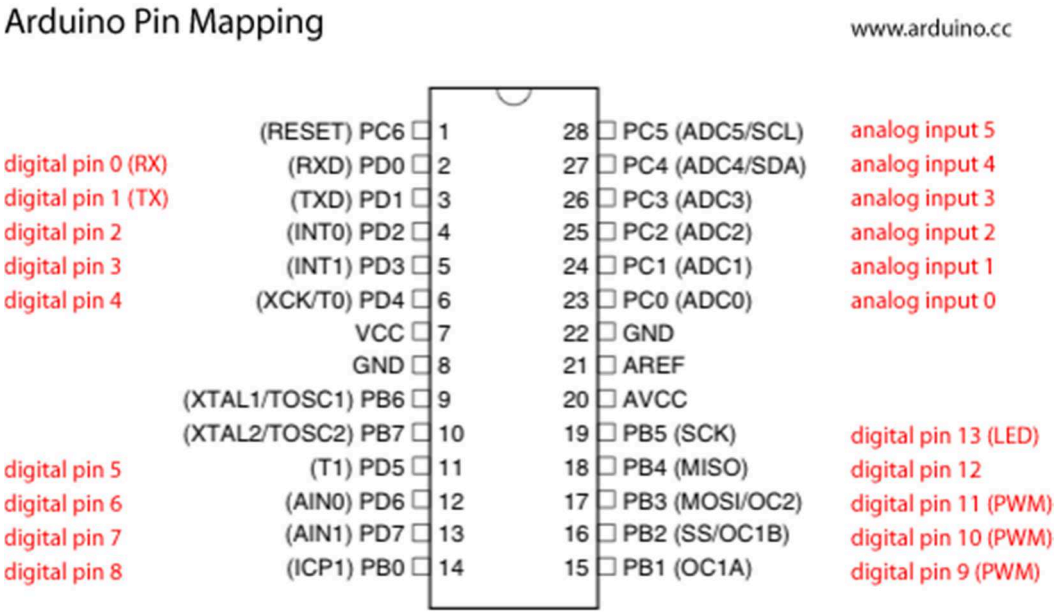
Place the button on the remaining pins above the chip.



Place jumpers as shown above – the RED Square on the right is the POSITIVE

Power connection and the YELLOW is the NEGATIVE (or Ground).

Congratulations, you have finished your kit.



Here is the pin mapping for the ATMEGA328 chip

to the equivalent Arduino pins.

Using an FTDI USB to TTL Converter to

Program your chip.

(Part ID : PPFTDI01)

FTDI board	ATMEGA328 Chip
GND	GND (Pin 22)
PWR (or 5V or 3V)	AVCC (Pin 20)
Tx	Rx (Pin2)
Rx	Tx (Pin 3)

The included 10uF Capacitor : -ve to RESET (Pin 1) and +ve to the row between the reset pin legs (2nd row down), and a jumper from here to RST or RESET on the FTDI Board.

Use the Arduino IDE as normal to upload to an UNO, the board will auto-reset and the sketch will be uploaded.

Using an Arduino to program your chip.

Arduino	ATMEGA328 Chip
GND	GND (Pin 22)
5V	AVCC (Pin 20)
Tx	Tx (Pin 3)
Rx	Rx (Pin 2)

Jumper RESET on the Arduino to GND on the Arduino (This keeps the Arduino's on-board chip in reset so it won't cause issues while you upload your code).

Use the Arduino IDE as normal to upload to an UNO, the board will not auto-reset, so you need to tap the RESET button on your breadboard when the IDE shows the sketch size. This may take a few attempts to get the timing correct, you may find it easier to hold the button down and release it when the sketch size is shown in the IDE.