

# Free *Fritzing*!

*Fritzing* is a free to download Germany-based open sourced software (latest version is 0.9.2b and was released in April 2015) available from their website <http://fritzing.org>.

Free downloads are available for PCs, Macs and Linux based systems. This software allows electronics circuits to be graphically drawn and documented, then used throughout Engineering Science courses in your department. Project galleries are available from beginners to advanced circuits. *Fritzing*, however, does not simulate the circuits (for that read the overleaf article on Livewire and Control Studio 2!).

Use can be made of existing library parts or new parts created. Figure 2 shows the use of the library image of Arduino UNO together with a buzzer. Wires can be added during the editing phase of the circuit graphics.



Figure 1 - Pull down menus from <http://fritzing.org>.

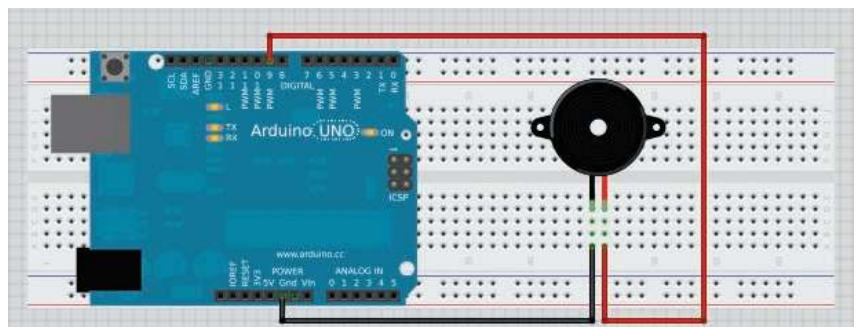


Figure 2 - An Arduino Alarm Circuit.

The free software allows a breadboard view where virtual electronic components can be wired and placed on a virtual breadboard (Figure 2). Parts that do not exist can be created as well. The schematic view is where the former representation of the schematic can be viewed and edited (Figure 3). Changes can be made using the wide selection of options in the parts library.

The PCB view allows you to place parts on a printed circuit board.

(Figure 4) An auto-router generates the traces and the final PCB layout can be exported to the necessary production formats.

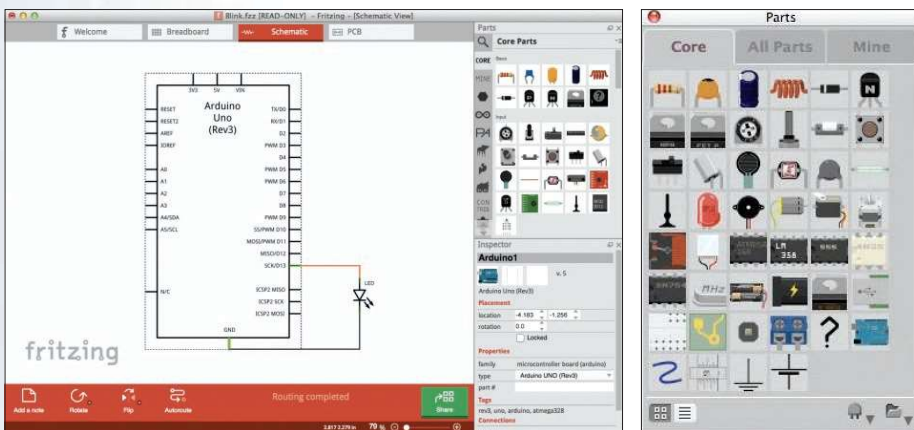


Figure 3 - Examples of schematics and parts.

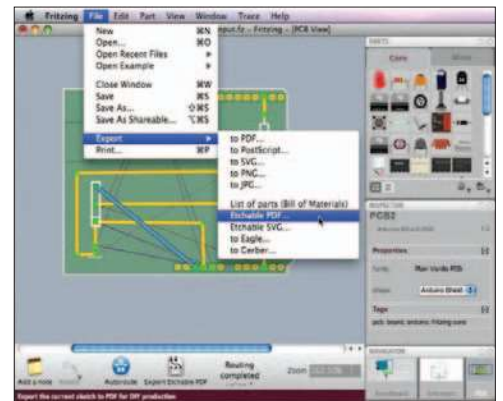


Figure 4 - Example of PCB editing.

In our judgement, *Fritzing* software provides teachers and pupils with a free and easy method of producing high quality electronics graphics, schematics, breadboard and PCBs.