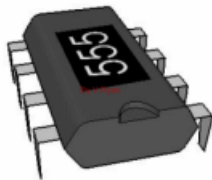


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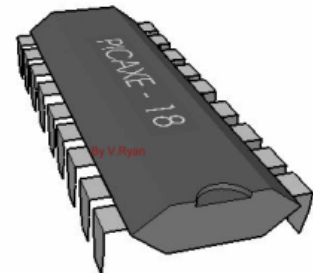
O. SAYADI
P. GILME

INTEGRATED CIRCUITS

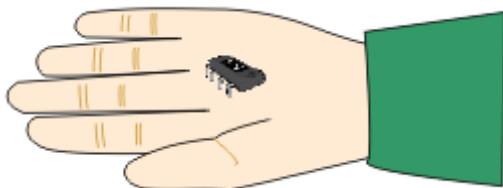
Integrated circuits (ICs) are very important components found in many circuits. They are also called silicon chips or microchips. Basic 555 timer circuits ranging to complex PIC Microcontroller circuits and computer processors (CPUs) are based on the use of integrated circuits.



555 TIMER



PIC MICROCONTROLLER



A typical integrated circuit package is very small. The diagram opposite gives some idea of the small scale of a typical 555 timer IC. It would easily fit on the end of a finger. A 555 timer only has 8 pins, four on each side. However, even the larger 19 pin ICs are small enough to fit very easily in the palm of the hand, if not on the end of a finger tip.

People often get confused with the term integrated circuit. The diagrams below clearly show the integrated circuit package with its 8 pins. However, the integrated circuit is found inside the package. The package is the outer casing, usually made from non-conducting ceramic material.

The 555 integrated circuit is found inside a ceramic package. The IC is connected to the pins by fine wires. Diagram 'A' shows part of the package cut away revealing the IC inside. Diagram 'B' shows the package as transparent. This means that the connecting wires from the IC to the pins can be seen.



DIAGRAM 'A'

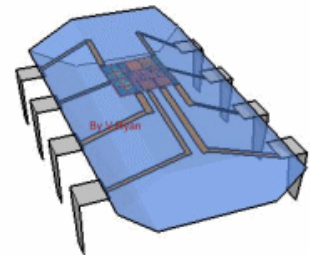


DIAGRAM 'B'