

## Internal Working of the Keyboards:

**1. The Key Matrix:** The keyboard has its own processor and circuitry called key matrix. The key matrix is a collection of circuits under the keyboard, which is broken at a specific point under every key, which results in making the circuit incomplete.

**2. Working of the Keys:** There is a little hole beneath each key. When a key is pressed a bar of that key pushes through the hole, thus making contact with the circuit layers below.

**3. Detection of Keypresses:** The circuit completes and allows a tiny amount of current to flow. A processor analyzes the position of the keys pressed and sends this information to the computer. The keyboard controller processes the information that is sent by the keyboard's processor and sends it to the operating system (OS).

**4. Analyzation of Keypress:** At first, OS then checks this data to analyze if it contains any system-level commands so it's executed. If not, it forwards the information to the current application. The application then checks if the keypresses relate to commands in the application for execution.

**5. Character Mapping:** The key matrix has a corresponding chart or character map that is stored in the read-only memory (ROM) of the computer. All the keys are mapped and stored in the memory.