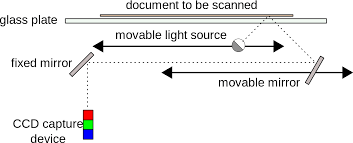
* Keyboard
* use switches and circuits to translate a person's keystrokes into a signal a computer can understand. In this article we will explore keyboard technology along with different key layouts, options and designs.
* Trackerball mouse
* A track ball has two roller sensors inside the mouse. One reads change in the X axis while the other reads change in the Y axis. As the ball rolls against the desk, it also rolls against the sensors. The sensors detect the how many degrees the sensor rotates and sends it to the computer. The sensitivity settings in your OS will dictate how many pixels it will move the curser in relation to the amount of degrees each roller has rotated
* Optical mouse
* uses an LED(light-emitting diode) which illuminates red light(generally) onto the surface underneath which is reflected back and fine-tuned before getting picked up by the sensor. A plastic lens collects the reflected light and forms an image on a sensor.
* Scanner
* 
* Inkjet printer

*Bubble jet:*

* Upon receiving instructions from your computer, the electronic circuit in the printer figures out which nozzles have to be fired to print a particular character at a certain point on the page.
* The circuit activates each of the nozzles by passing an electric current through a small resistor inside it.
* When electricity flows through the resistor, it heats up.
* Heat from the resistor boils the ink inside the nozzle immediately next to it.
* As the ink boils, it forms into a bubble of ink vapor. The bubble expands enormously and bursts.
* When the bubble pops, it squirts the ink it contained onto the page in a precisely formed dot.
* The collapsing bubble creates a partial vacuum in the nozzle that draws in more ink from the ink tank, ready for printing the next dot.
* Meanwhile the entire print head (light orange) is moving to the side ready to print the next character.
* Laser printer
* 首先将电脑传来的打印信号转化成脉冲信号传送到激光器，主充电辊给机感光鼓充上负电，为成像做好装备，随后由图像信息控制的激光照射到感光鼓上，受照射的区域带上正电，形成潜伏的图像。
* 接下来粉仓中的墨粉被不断搅动，由一个送粉辊转移到显影辊上，显影刮板使墨粉以一定的厚度平铺在显影辊上，墨粉在不同部件之间转移时带上负电荷，能吸附到感光鼓表面带正电荷的区域上，感光鼓上的墨粉随后被转移到纸张上。
* 带有墨粉的纸张经过加热组件，使墨粉融化渗透到纸张中。
* 感光鼓表面残留的墨粉由鼓刮板刮到废粉仓中，感光鼓上的潜伏图案被主充电辊擦试，未转移到感光鼓上的过量墨粉由送粉辊送回粉仓中。
* 3D printer
* A 3D printer essentially works by extruding molten plastic through a tiny nozzle that it moves around precisely under computer control. It prints one layer, waits for it to dry, and then prints the next layer on top
* Speakers

Speakers work by converting electrical energy into mechanical energy

* Hard disk

controlled by a read head and  
a write head. A read head uses the basic law of physics that a state of magnetisation will  
affect an electrical property; a write head uses the reverse law.

* Solid state (flash) memory
* Flash memory is a semiconductor technology with no moving parts. The circuits consist of arrays of transistors acting as memory cells. The most frequently used technology is called 'NAND' because the basic circuitry resembles that of a NAND logic gate (see Section 4.03) with the memory cells connected in series
* Optical discs
* The disc spins and the laser beam is reflected from a surface which is sandwiched between a substrate and a protective outer coating. For a CD-ROM, the reflective surface is manufactured with indentations, called 'pits', separated by what are referred to as 'lands'. When the disc is being read, the travel of the laser beam to a pit causes a difference in phase compared to reflection from a land.
* Microphone
* Reverse of speaker
* Touchscreen
* Resistive: screens literally “resist” your touch; if you press hard enough you can feel the screen bend slightly. This is what makes resistive screens work – two electrically conductive layers bending to touch one another
* Capacitive: when a finger hits the screen a tiny electrical charge is transferred to the finger to complete the circuit, creating a voltage drop on that point of the screen