**Special Effects** (often abbreviated as **SFX**, **SPFX**, or simply **FX**)

*Definition: illusions or visual tricks used in the* [*film*](https://en.m.wikipedia.org/wiki/Film)*,* [*television*](https://en.m.wikipedia.org/wiki/Television)*,* [*theatre*](https://en.m.wikipedia.org/wiki/Theatre)*,* [*video game*](https://en.m.wikipedia.org/wiki/Video_game) *and* [*simulator*](https://en.m.wikipedia.org/wiki/Simulator) *industries to simulate the imagined events in a* [*story*](https://en.m.wikipedia.org/wiki/Narrative) *or* [*virtual world*](https://en.m.wikipedia.org/wiki/Virtual_world)*. We will obviously focus on LIVE effects (theatre).*

**Two Categories:**

* **Mechanical Effects**- Mechanical effects (also called [practical](https://en.m.wikipedia.org/wiki/Practical_effect) or [physical effects](https://en.m.wikipedia.org/wiki/Physical_effects)) are usually accomplished during the live-action events (theatre).
* **Optical Effects-** Optical effects (also called photographic effects) are techniques in which images or film frames are created photographically.

**Types of Special FX used on STAGE:**

1. **Pyrotechnics-** Chemical explosive or flammable firework effects with a manual detonation. Usually electrically fired with special designed fail-safe equipment.
There are many different variations of pyrotechnic effects available.

The categories are as follows:

**Theatrical Flash -** a flash and a cloud of smoke
**Maroon:** produces a very loud bang. Must only be detonated inside a bomb tank covered with a protective mesh.
**Gerb:** version of the Roman Candle firework, throwing a shower of sparks into the air.

**Simulated Candles:** Candle with a fake flame (still flickers).

\*\*\**All pyrotechnics should be used with close reference to local licensing laws, and the manufacturers instructions. Professional advice should be sought before the first use of effects. Fire on stage can be extremely dangerous!*

2. **Fog-** A Smoke Machine or Fogger is an electrically powered unit which produces clouds of white non-toxic fog (available in different flavours/smells) by the vaporisation of mineral oil.

**Low Lying Fog-** Fog that hugs the ground and usually spill over the apron. Dry ice is used to keep the fog heavy.

3. **Snow/Rain-** There are a lot different ways to do this. At times real (fake) snow can be used to shower a stage or audience. Or faux snow that is more of a white confetti effect. There are many clever ways to create rain, including using real water (comes with a lot of issues).

4. **Haze-**  A Haze machine, Hazer or Diffusion Fogger is used to produce an atmospheric haze, rather than clouds of smoke, and is used by many lighting designers to reveal airborne light beams.

5. **Bubbles-** Pretty straight forward. Larger than what you use as a kid. Can cover the stage or audience in bubbles.

6. **Confetti-** A Confetti Cannon shoots a stream of confetti that can cover an audience or a stage. You can purchase in many different colors to achieve different effects.

7. **Geysers/Cannons-**  This powerful fogger blasts a vertical stream of safe, water-based fog while simultaneously illuminating it with 7 high-power (9W) penta-color (RGBA+UV) LEDs. Precise control over the LEDs allows you to easily mix the perfect color to illuminate the fog, creating a photo-realistic "flame projector" or "flash pot" effect.

8. **UV Paints-**  (Black Light Effects)- “Glowing Paint” or color on stage using UV lighting.

How it Works- The bulb in a black light fixture is designed to emit very little visible light; most of its output is harmless UV-A radiation. By itself, a black light doesn't do much other than produce a dim, purplish glow. The real effect of a black light is seen when something that is UV-reactive is exposed to it. An item is UV-reactive if it contains phosphors that react to UV-A radiation. Okay, so what's a **phosphor**? A phosphor is a chemical substance that emits visible light when it's excited by UV energy. Phosphors are used in fluorescent lamps, televisions, even laundry detergent! They're also responsible for the groovy, glowing effects you see with fluorescent paint.

9. **Breakaway Glass**-These are simulated glass products made from a special plastic resin. They are typically used in stage and film productions where the script calls for a bottle or glass to be broken.

10. **Fly Systems-** The most exciting one! A fly system, or theatrical rigging system, is a system of rope lines, blocks (pulleys), counterweights and related devices within a theater that enables a stage crew to fly (hoist) quickly, quietly and safely components such as curtains, lights, scenery, stage effects and, sometimes, people.

* It is, by definition, a simple machine; by attaching one end of a specially-designed pulley mechanism to the actor and having a member of the backstage crew act as a counterbalance by pulling on the other end, the performer can be lifted up off of the ground and appear as if he or she is flying.
* Making actors fly continues to take a lot of supplementary effort, as well as requiring many additional safety considerations that consequently make it cost a lot more to mount a show that necessitates such spectacles. Everyone deserves a chance to FLY!!!!