

- * What is it & why do we use it?
- * Bouncing on-camera flash to emulate off-camera light
- * True off-camera flash
- * Basic examples
- * Trigger mechanisms
- * Controlling the amount of light
- * Light modifiers

What is it?

Making the light hit your subject from any direction other than the camera viewing angle.

Why use it?

* Control

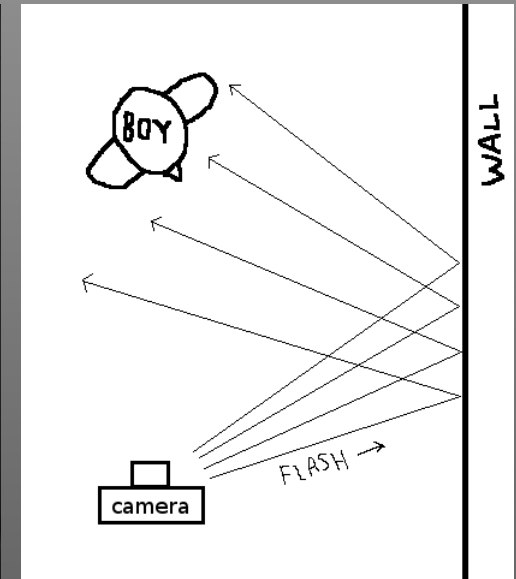
- * Amon's lighting styles can be created artificially regardless of time of day or weather conditions.
- * Selectively light parts of the scene.
- * Position lights to emphasize form and texture.

* Freedom

- * You're no longer a slave to available light.

Bouncing On-Camera Flash

- * Point the flash at a wall/ceiling and let the light bounce back from there to light your subject.
- * Creates a large, soft light source.
- * Works well with TTL automatic exposure setting.



- * The farther away or darker your bounce surface is, the more power is required from your flash to light your subject.
- * Results are limited by the surfaces available for bouncing and the angle at which you can aim your flash head from a particular camera position.
- * Doesn't work outdoors, in auditoriums, or with colorful walls.

- * Locate the flash and point it wherever you like. Use as many flashes as you like.
- * Allows more flexibility and control.
- * Easier to selectively light certain portions of the scene.
- * Numerous ways to trigger the flashes from the camera (more later).
- * This is what www.Strobist.com is all about.



Silhouettes



Environmental Without & With Flash



One-light shots



Examples

Party room lighting



Two-light shots



- * Wired extension cords
 - * Hot shoe extension or PC cable
 - * Provide full electronic TTL control of the flash
 - * Off-brands are reportedly unreliable. Canon OC-E3 (\$70).
- * Audio triggers
 - * Fires flash when it hears a sharp sound like a balloon popping or glass shattering.
 - * The flash is fast enough to stop motion even though the shutter speed isn't.



- * “Dumb” radio triggers
 - * Use RF signal like cordless phone or WiFi network.
 - * Range of hundreds of feet – no line of sight necessary.
 - * One transmitter at camera + receiver at each flash.
 - * Different brands of TXM/RCV not interchangeable.
 - * Yongnuo RF-602 (\$25/pair) will also work as a wireless shutter release.
 - * Flash must be setup manually – trigger merely fires flash.



- * “Smart” radio triggers
 - * Also transmits TTL info between camera & flashes for automatic control via camera body.
 - * PocketWizards cost \$400/pair.

- * “Dumb” optical triggers
 - * Fires its flash when it sees another flash (limited range).
 - * No communication with camera, so settings are controlled manually on the flash itself.
 - * Fine if working alone. Bad if other photographers are using flashes in the same room.
 - * Easily confused by TTL pre-flash from modern flashes.
 - * Cheapest option (\$15).
- * “Smart” optical triggers
 - * Use rapid light flashes (pre-flash) to communicate between body & flash.
 - * Full TTL support for automatic exposure setting.
 - * Nikon/Canon use this method on their own equipment (Nikon is more friendly).

- * Manual power setting on flash (usually in full-stop increments).
- * Diffusers between flash & subject (soft box or plastic bag).
- * Distance from flash to subject – increasing distance by 40% cuts amount of light in half (square of the distance).
- * Aperture (amount of light entering through lens) and ISO (sensor's sensitivity to light).
- * Shutter speed has NO bearing on flash power – use it to control exposure of ambient (non-flash) lighting like sky or room lights. Be sure to stay slower than your camera's max sync speed (~1/200s).

- * Soft boxes and umbrellas diffuse the light for a larger, softer light source at the expense of flash power.
- * Snoots and grids direct light for a more concentrated beam.
- * Household items like plastic bags and construction paper can be used as modifiers.
- * Gels apply a color cast to the light. Used to correct the flash's white balance to match the ambient light (orange for incandescent) or can be used for creative effect.

