

Setting Up a Home Studio

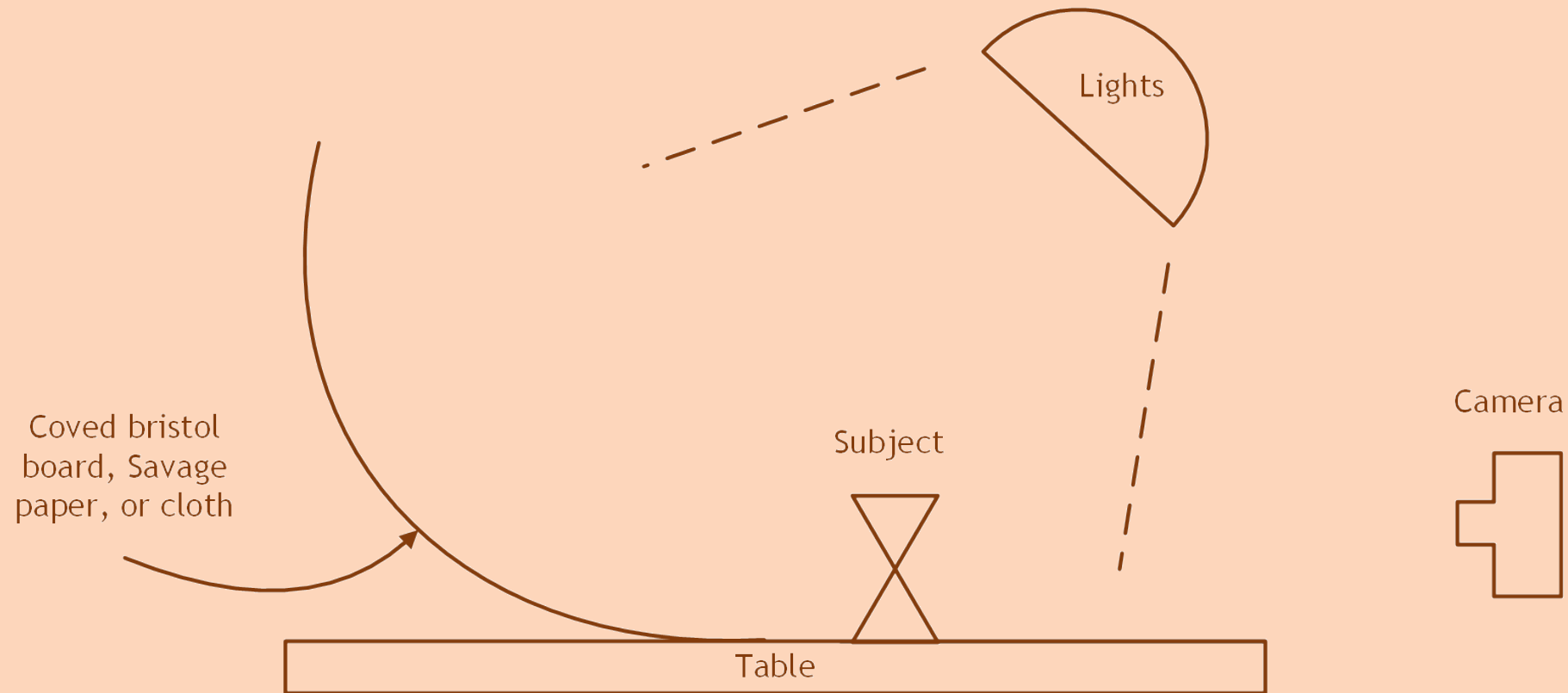
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Part I Equipment

- Talking about equipment is a distraction
- Studios, home or not, are equipment intensive
- Published studio setup articles are at least 50% equipment
- Strategy One – buy as need arises
- Strategy Two – anticipate needs, buy ahead
- The expensive tool is the cheapest
- Tools should save effort and elapsed time
- Don't obsess over buying all the gear as you start building your studio; start with low hanging fruit

Basic Setup

Standard Lighting Covered Background



Table

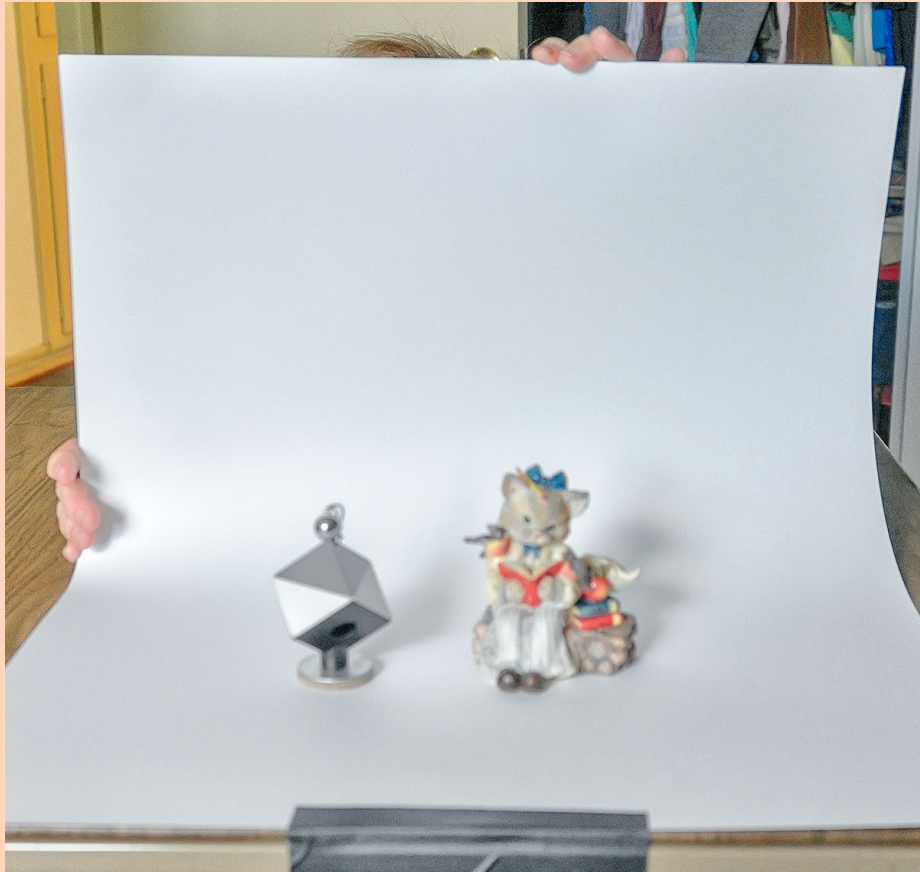
- Stainless Steel Commercial Kitchen Prep Table with Under Shelf (Overkill)
- Wheels sometimes are purchased separately
- Various sizes
- Table height should match camera on tripod height with center column collapsed



Studio Background Options

- Still life
- Portraits
- People require much larger background, square footage, etc.
- Bristol board with diffuse window light; 39 cents
- Savage Paper with Background Stands; More than 39 cents

Bristol with Assistant vs. Savage Paper with Background Stands



Types of Lighting

Soft Light

- Soft or no shadows
- Wide source
- Soft box
- Umbrella
- Overcast sky
- The larger the light source, the softer the light
- The closer the light source, the softer the light

Hard Light

- Hard shadows
- Point source
- Sunlight no clouds
- Speed light
- Raw studio light (bare bulb)

Lights

- Continuous lights
 - Old style hot lights (hard)
 - New circular fluorescent lights (soft)
- Electronic flash
 - Speed lights (hard)
 - Separate diffuser (soft)
 - Studio flash (hard)
 - Mono lights each light has it own ac cord
 - Power pack plug lights connected to power pack with proprietary connection
 - Umbrella holder built-in (soft)

Speedlights

Pros

- Perfect in small photography studios and for portable setups
- Lightweight and small
- Cheap—particularly manual units
- Requires speedlight diffuser

Cons

- Low power
- Lack of modeling light Long recycle time, particularly at full power, making it hard to shoot in burst mode
- Must get add-in light ratio control or make sure purchased unit has one

Studio Flashes

Pros

- Powerful light
- Can have built-in a modeling light
- Includes an AC plug for batteryless operation

Cons

- Price
- Heavy and bulky
- Requires umbrella or soft box
- Need sturdy light stands
- Cheap units can overheat and stop working until they cool down

Most Commonly Used Studio Lights Are Electronic Flash

Speed
Light



- Studio Flash
- Aka Mono Light



Light Stands and Clamps

- Check for 5/8 inch connector
- Sooner or later you will need Manfrotto utility clamps
- Check Manfrotto first for studio hardware



Right Angle Bracket for Vertical Compositions

- Keeps center of gravity of camera plus lens more directly over center of gravity of the tripod



Apple Box

- Original purpose adjusting height of models
 - Comes in various heights (1-2-4-8")
 - Gillian Anderson (62") with David Duchovny (72")
- Also can be used to adjust height of seamless background



Light modifiers

- All modifiers require light stands!!
- Umbrellas
- Soft boxes, octa boxes, etc.
- Reflectors
- Flags
- Barn doors

Dedicated Speed Light Reflectors and Umbrellas

- Usually inexpensive
- Soften light
- Significant light spill; this might not be a disadvantage as placement is less fussy
- Easy to attach



Soft boxes, Octa boxes, etc.

- More expensive than umbrellas
- Good control over your light
- Softer glow in general
- Must be built out using stilts, a time-consuming and awkward process

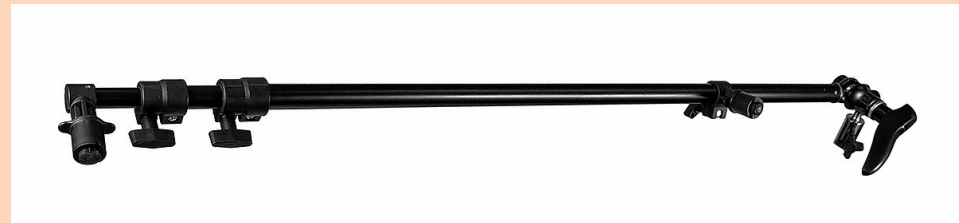


Adding Tent Makes Light Even Softer



Reflectors

- Bounce light back into the scene
- 5-in-1 reflectors provide various types of reflective surfaces
- In one package, you get silver, gold, white, black, and translucent
- Foam core board as good as commercial reflectors
- Need reflector holder for light stands



Flags and Barndoors

- Flags are generally a single card attached to a single light stand
- Barndoors are 2 to 4 cards attached to the studio light reflector
- Stop stray light from bouncing around the set
- Flags and barndoors are generally black
- Material can be a panel, cardboard, a curtain, a cloth, etc.
- 5-in-1 reflectors have a black side allowing you to use them as flags

Barn Door, Commercial Flag, Cardboard Flag



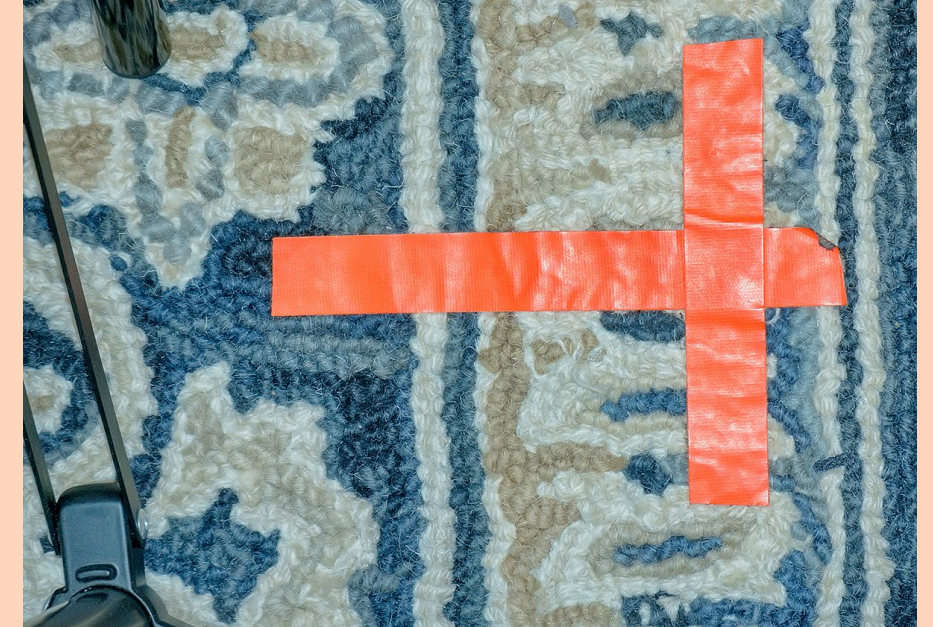
Flash meter

- Registers only flash burst
- Note PC connector
- Can directly trigger flash us PC connector



Gaffer's tape

- A gaffer is a lighting technician or electrician in a motion-picture or television production unit



- Wide
 - Universal attachment when light stand gadget not available
 - Can be torn by hand
 - Strong hold
 - Easy to remove

- Narrow
 - Spike marks

1 / 2

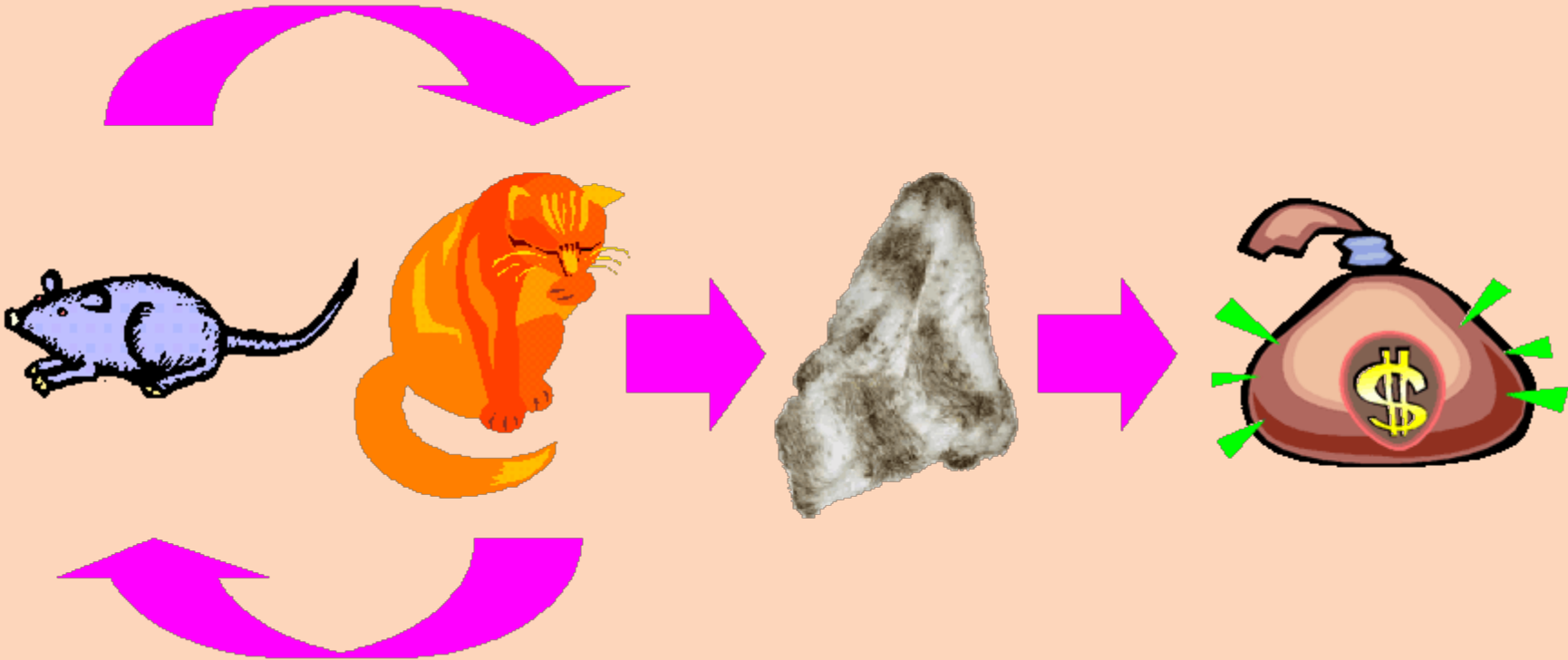
Part II Process and Requirements

- Define your personal requirements
 - Determine your range of subjects, such as
 - People
 - Still life (table top)
 - Determine level of effort and budget
- Scope of installation should be sufficient for requirements but not more than necessary

Real Estate Options

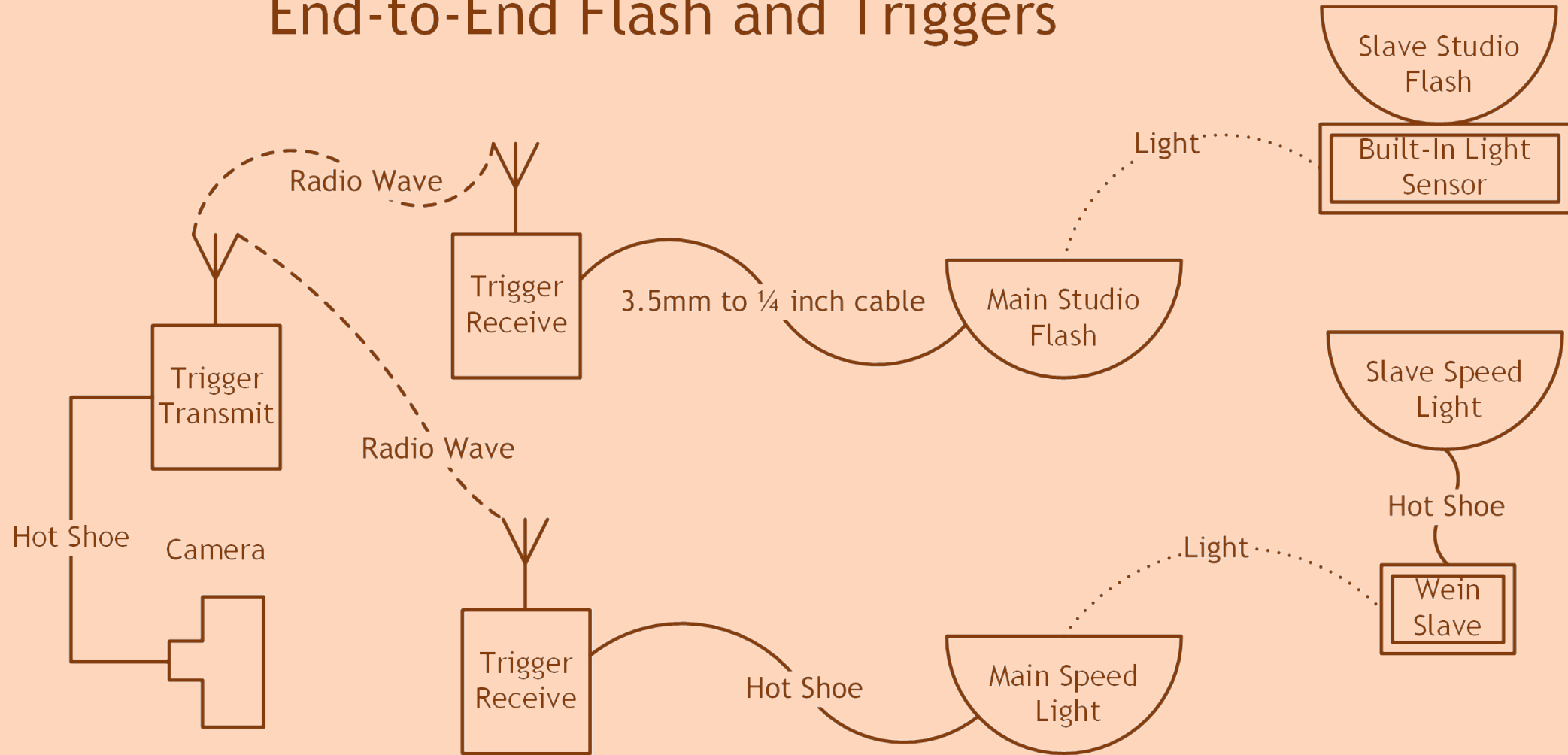
- Convert a spare room or even a tool shed
- Working in smaller spaces can be quite challenging
- Working in larger spaces can be quite challenging
- Consider how many people will need to fit in studio
- Place background stand against one of the walls
- Set up the light stands in front
- Extension cords and power strips
- The setup is correct when you trip on everything on the floor and bump your head on all elevated items

San Bromista Cat Ranch Design Pattern



Rube Goldberg Flash Setup

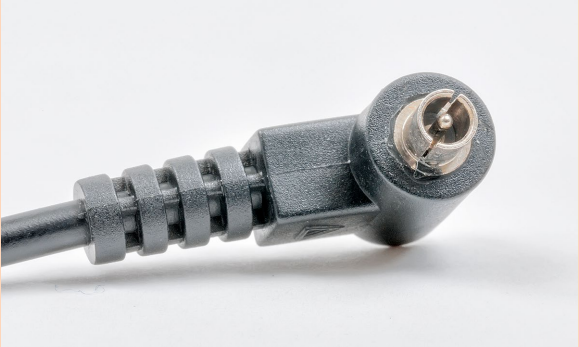
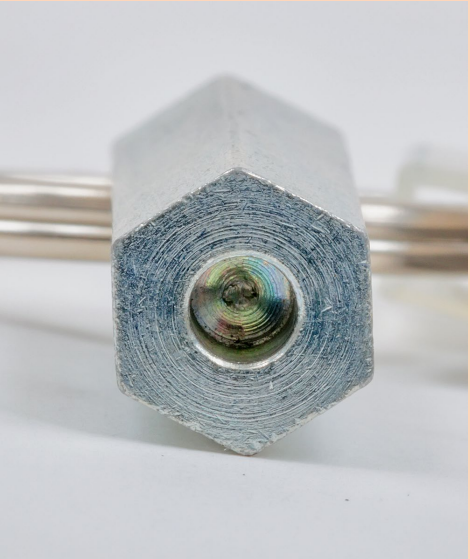
End-to-End Flash and Triggers



Triggering flash

- Cables – not recommended
- Wireless trigger
- Wein slave
- Built-in slave on mono lights
- PC connection
 - Photo connector, not personal computer or politically correct
- Hot shoe

PC Connector with Tool for Fixing Connectors



Wireless Flash Transceiver



Light Stand Holder for Wireless Transceiver – Note Dual Hot Shoes



Camera with Transmit Transceiver

- Hot shoe or PC connection
- Hot shoe electronic trigger used here
- Macro rail
 - At very close focus, it is easier to move the entire camera than focus
- Three way pan head
- Cable release or self-timer





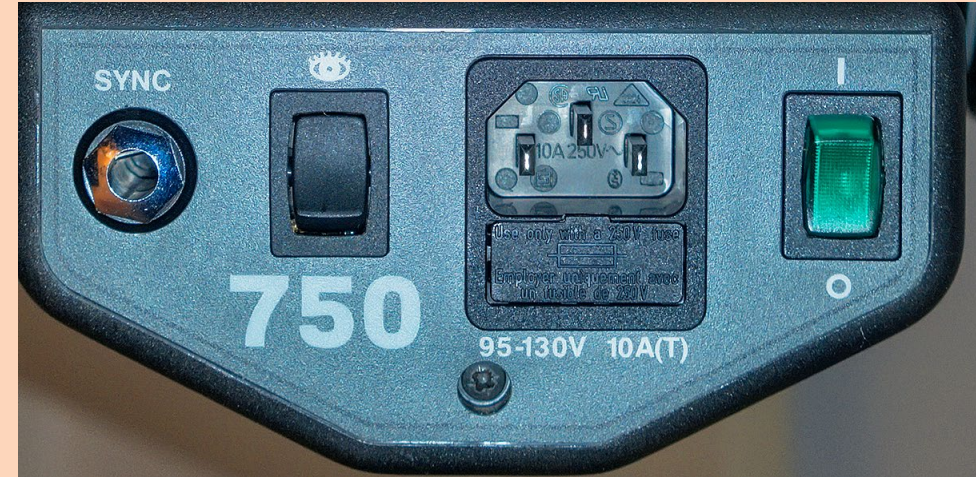
First Speedlight with
Receive Transceiver



Second Speedlight with Receive
Mode Using Wein Light Slave

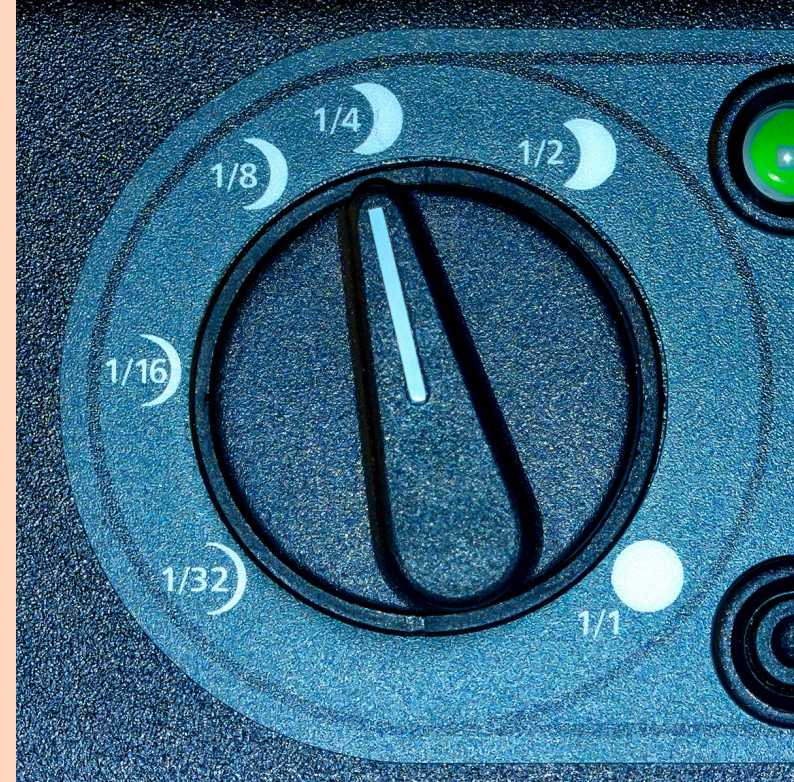
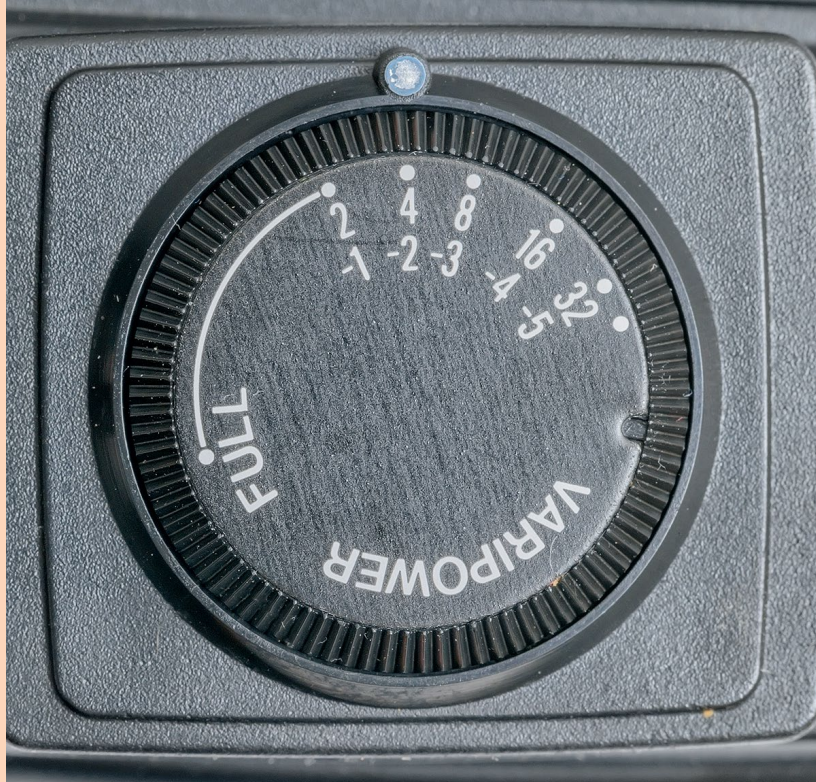


First Studio Flash with Receive Transceiver

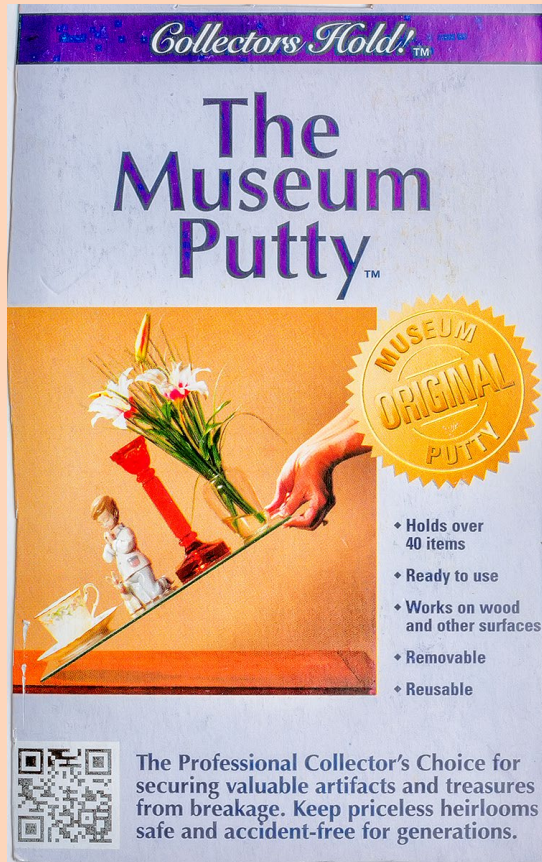


Second Studio Flash with Built-In Slave Switch Above 750

Manually Set Lighting Ratio

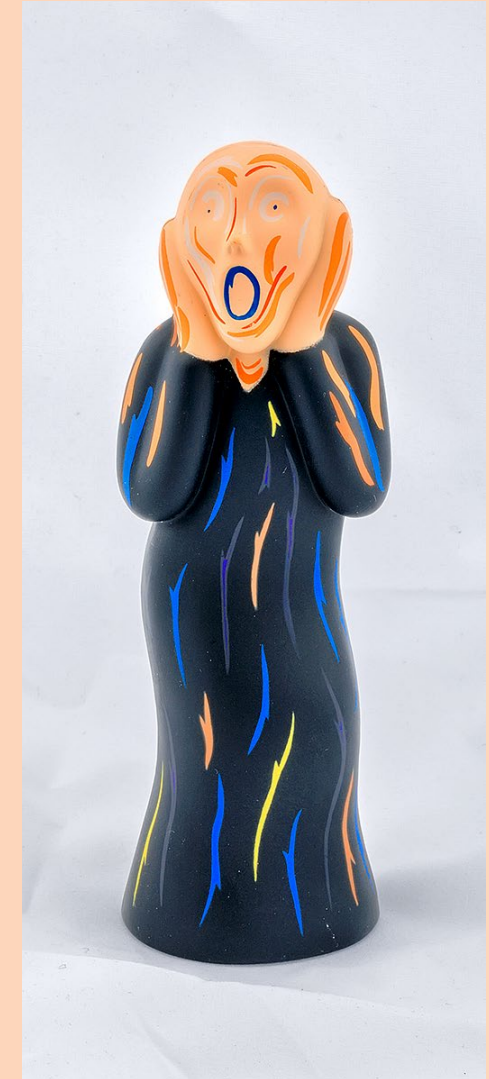


Securing Small Props



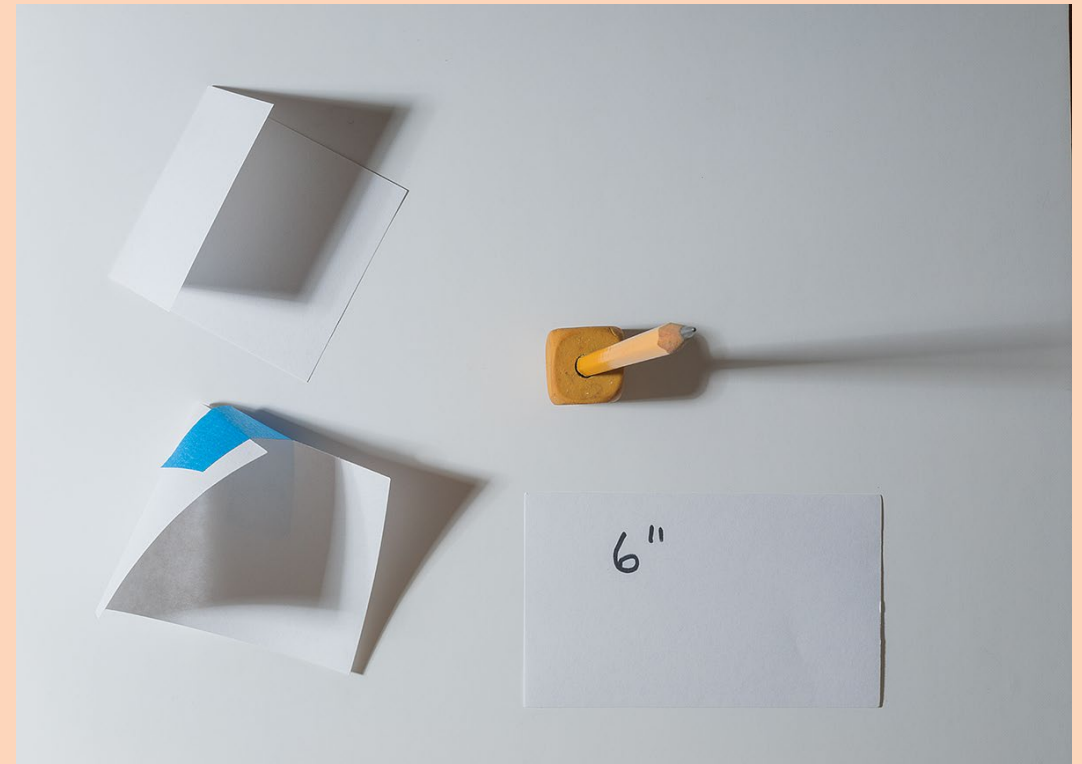
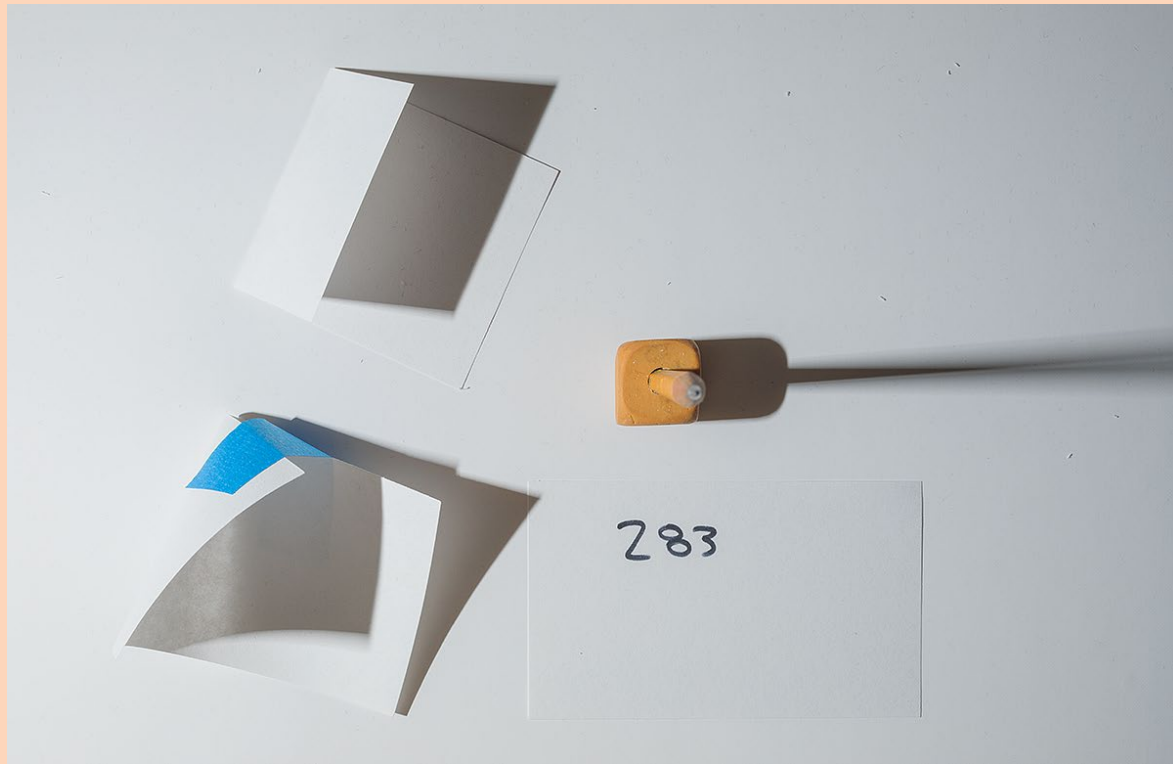
Dulling Spray Reduces Reflections

- Krylon Dulling Spray now out of production
- AESUB Orange being tested

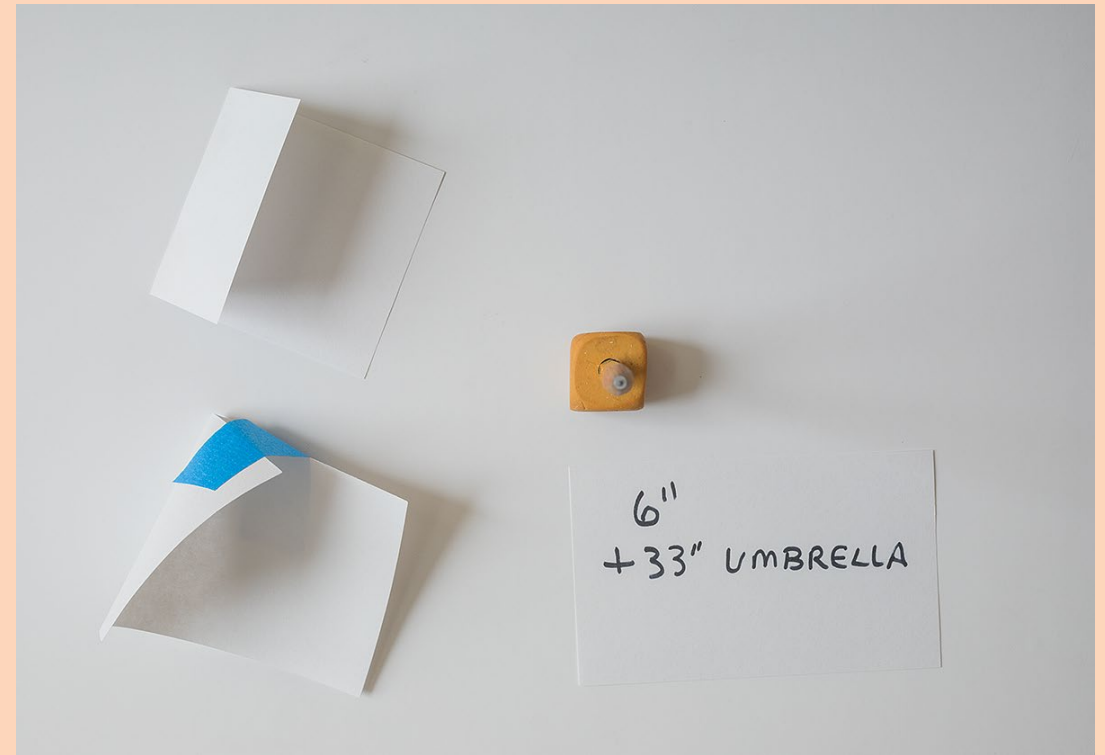
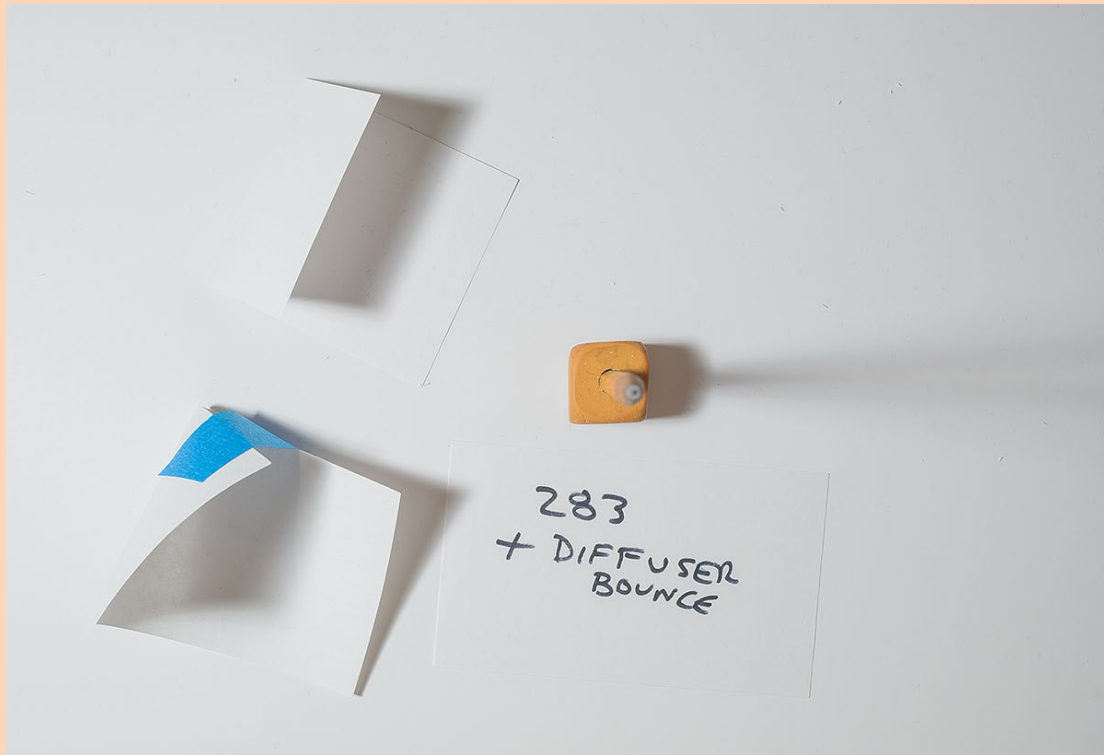


Test Everything

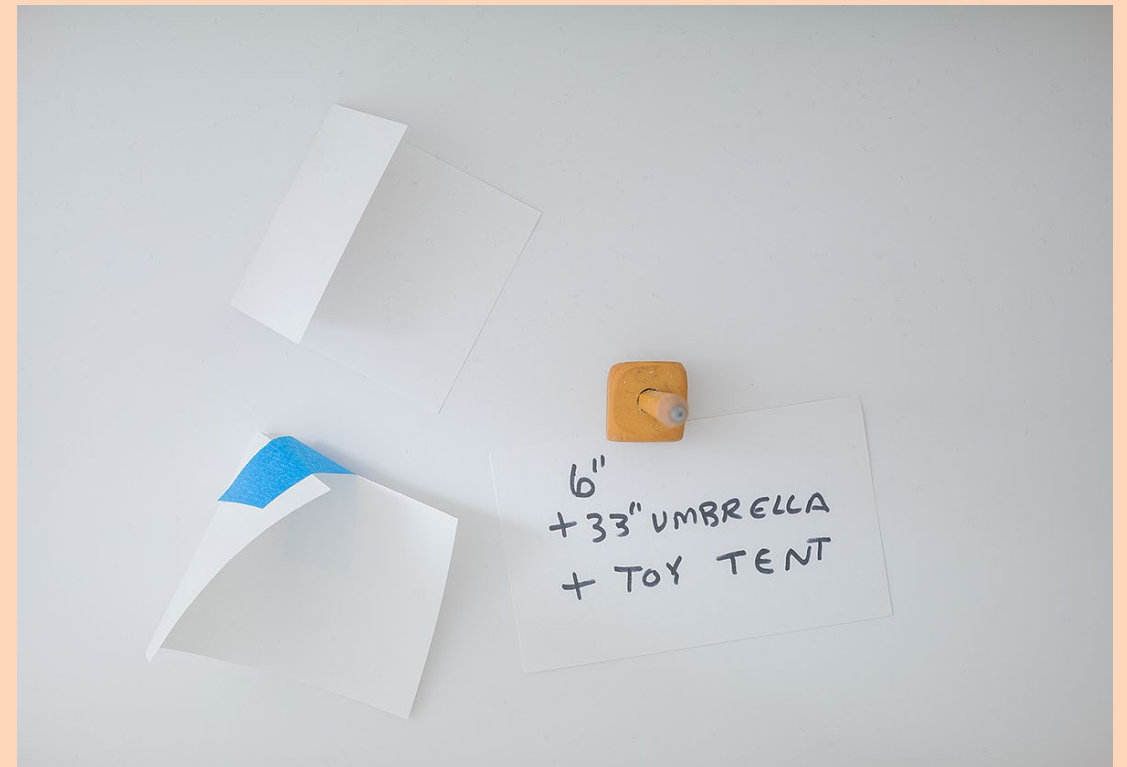
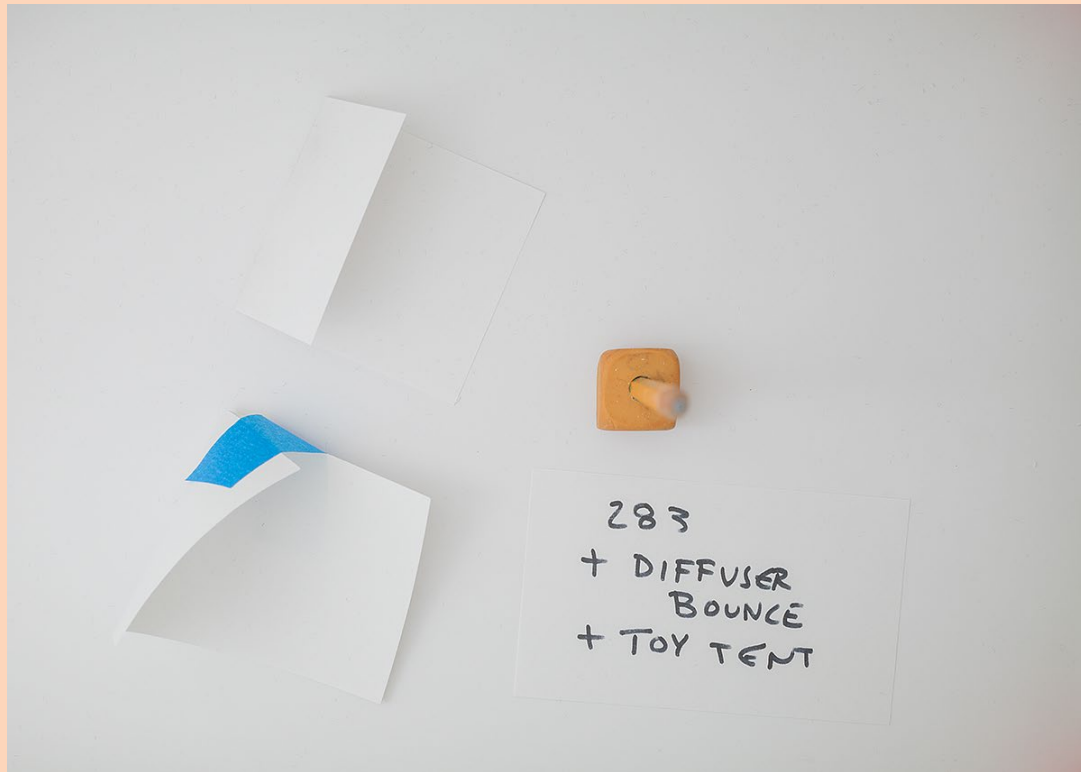
Generic tests Speed Light vs Studio Flash Both Hard Light



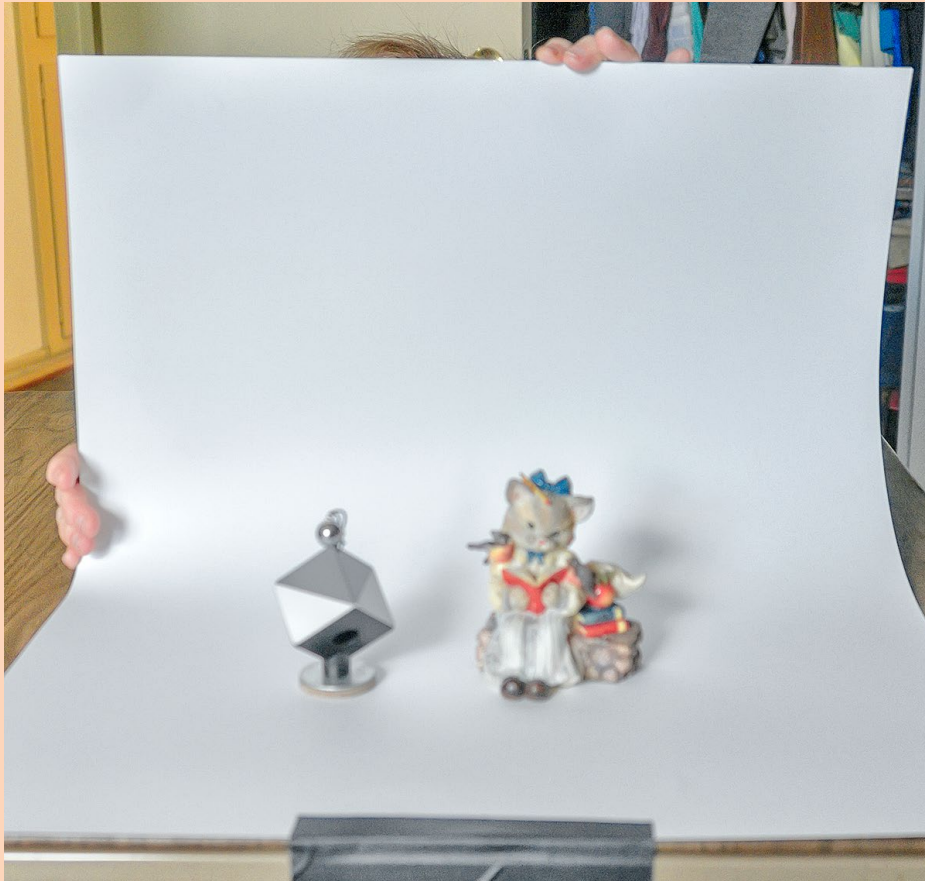
Generic tests Speed Light vs Studio Flash Diffuser - Umbrella



Generic tests Speed Light vs Studio Flash Diffuser + Tent vs. Umbrella + Tent



Object Tests - Readers Example Window Light vs Full Studio



Object Tests - Readers Example Window Light vs Full Studio



Object Tests

Readers
Example

Window
Light vs
Full
Studio



Get Rid of Ambient Light

- When working with flash indoors, natural ambient light will contaminate the photographic studio lighting setup
- Use blackout curtains or other opaque window covering
- Avoiding ambient light does not mean working in total darkness
- Often it is a prudent utilize a low level of ambient light
- To ensure your ambient light is not affecting the photo, do test shots
 - Set up your camera to take a photo without firing your flash
 - Make sure that the resulting image is completely black
 - This test will happen periodically by accident when the flash steam is inadvertently disconnected

Use Red Light to Preserve Night Vision in Dark Studio

- Small flashlights are useful in dark environments
- Red light is used in a dark room to preserve night vision
- Submarine movies with interior red lights are accurate
- Use Maglite white light when brighter light is needed in darkness

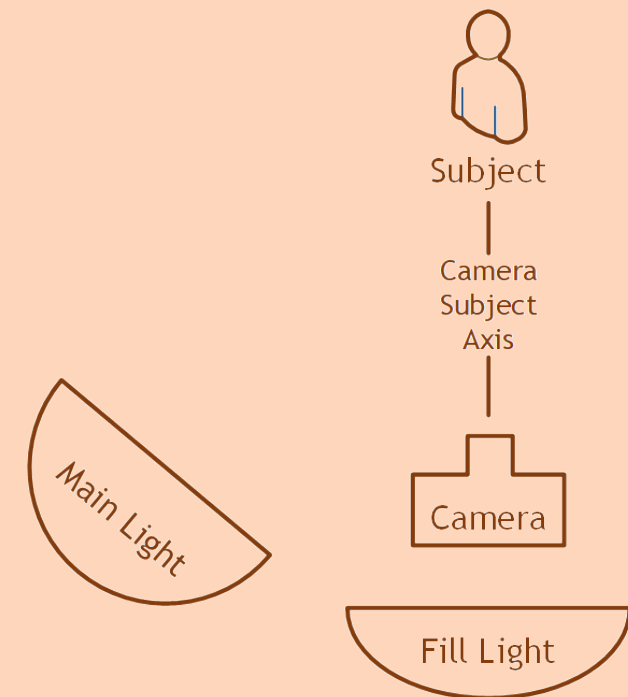


How many lights are needed?

- Three lights will give you a great deal of flexibility
- Often only two lights needed
- One light stand is needed for each flash unit
- Two light stands and cross bar needed for seamless background



Typical Studio Portrait Set Up



Production Tasks and Roles

What	Who
Concept and ideas	Writer
Schedule	Production manager
Props list	Art director
Prop acquisition	Props department
Daily or task call sheet	Assistant director
Set creation	Gaffer, carpenter
Principal photography	Photographer
Post processing	Editor
Set deconstruction	Strike crew

Summary

- These tips give are a starting point for the basics to build your own home photography studio
- Do not get too stuck on the idea of the perfect photography studio and equipment
- What counts the most is your creativity and your willingness to squeeze the most out of what you have

References

- Brown, Blain. *Cinematography: Theory and Practice: Image Making for Cinematographers and Directors*. Focal Press, 2016.
- “Manfrotto: Camera Tripods & Photography Accessories.” *Professional Photo & Video Tripods, Lighting, Bags*, <https://www.manfrotto.com/us-en/>.
- Minoia, Andrea, and Chad Verzosa. “How to Set up a Home Photography Studio (Easily & Cheaply!).” *ExpertPhotography*, 13 Dec. 2022, <https://expertphotography.com/tips-for-setting-up-your-home-portrait-photography-studio/>.
- *Set up Your Home Studio*. Time-Life Books in Association with Kodak, 1985.