

## 10 “MacGyver” tricks for photographers

Camera gear is expensive. Even when we shell out the bucks, we don't always use the gear or sometimes forget to bring it along. Here are 10 cheap and easy tricks any photographer can use:

### No. 1: Homemade Light Box

Why spend hundreds of dollars on a light box? You can make your own for under \$20.

Things you'll need:

- Cardboard box in good condition
- Utility knife
- Ruler
- Marker
- Mailing tape
- Clear LED strip lights with adhesive backing
- White tissue paper
- Iron and ironing board
- Painter's tape
- Canvas paper or poster board, white
- Canvas paper or poster board, black
- Power adapter compatible with LED strip lights
- Optional: Pair of desk lamps with adjustable arms

Time to complete project: 1 hour

1. Select a cardboard box large enough to accommodate the objects you'll be photographing. If you plan to photograph leaves, jewelry and other small things, select a box with dimensions of 11 x 11 x 11 or so. For larger objects, 20 x 20 x 20 may be best. Do keep in mind, larger boxes will be less sturdy than smaller ones.
2. Collapse the cardboard box. Using a utility knife, cut away the top flaps. Measure 1.5 inches inside the edges of three sides of the box, and draw a square window. Then carefully cut out the square with the utility knife. At this point, you have only one solid side of the box.
3. Turn the box upside down, then close and tape the bottom with mailing tape.
4. Turn the box on its side, solid side down. You now have two side windows and a “skylight.”
5. Carefully install LED strip lights with adhesive backing just inside the edge of the box all the way across the three cut-out sides.
6. Turn iron on medium and carefully iron sheets of tissue paper, softening the creases (it's probably impossible to remove the creases completely). If you're making a small box, 1 sheet will be enough. If your box is larger, you will need two or three sheets.
7. Cut tissue paper into panels for each of the three windows. You'll want the panels large enough so the edges extend about an inch beyond the cut-out openings.
8. Use painter's tape to secure the tissue paper to the outside of the box. Unlike mailing tape,



painter's tape can be repositioned easily. Tissue paper tears easily, so from now on the box needs to be handled very carefully.

9. Cut two pieces of canvas paper or poster board — one white, the other, black — to cover the bottom of the inside of the box and curve up the back. If the paper is snug enough, it will stay in place by itself. If not, use small pieces of painter's tape or even paper clips to secure it. (I place the black one in first, with the white one on top since I use a white background for most of my light-box photography. If I want a black background, I'll carefully slide out the white paper.)
10. Attach power adapter to strip lights and plug in. Voila! You have a light box.
11. For even more diffused light, place a desk lamp outside the two sides of your box.

## No. 2: String Monopod/Bipod

It's not always feasible to be lugging around a tripod. Other times, you may be charged for carrying one or maybe you're some place where tripods aren't allowed. In a pinch, I use a loop of string to stabilize handheld shots. It works great for smartphones but not so great with a camera. I researched and found a wonderful alternative at <http://www.instructables.com/id/String-Tripod/> I've modified the instructions a bit and figured out a way to make it also work with smartphones.

Things you'll need:

- 1 1 x ¼ -20 eyebolt
- 1 1 x ¼ -20 nut
- String or cord
- Tripod attachment (if using smartphone)

Time to complete project: 10 minutes

Cut a piece of cord or string that's double the height of your hands stretched above your head. Burn both ends of the rope with a lighter to prevent unraveling. Make an overhand loop knot on each end of the rope. Thread the loops together through and then around the eyebolt. Now screw the bolt into the bottom of your camera or the tripod attachment for your smartphone. Use the nut to keep the screw in place. Stand with your feet about shoulder-width apart, with each foot standing on the rope. Hold your camera taut. If it isn't eye level, adjust the rope. It can also be adjusted for a monopod – just anchor the rope with one foot and adjust it to eye level.

## No. 3: Stabilizer bag

Here is another alternative to carrying a tripod.

Things you'll need:

- Sandwich-size sealable plastic baggie
- 1 1/3 cups dry rice, popcorn, beans or shredded coconut

Fill the bag with the dry ingredient of your choice. Seal the bag, pushing most of the air out. Place your camera on the bag for stability on surfaces like rocks, logs or the hood of the car.





Time to complete project: 2 minutes

Optional:  
Dish towel  
Sewing machine

Time to complete project: 10 minutes

If you want a soft, non-slippery sleeve, use a dish towel. Cut a piece that's about 1.5 inches wider than the baggie and 4 times as long, plus an inch or so. Double the cloth. Using the sewing machine, sew the two cut sides of the cloth together. Turn out to create a sleeve for the baggie. To prevent raveling, I make the sewn and folded edges of the dish towel the opening of the sleeve.

#### **No. 4: Light reflector**

You can create fill light in a jiffy.

What you'll need:

Piece of cardboard  
Tape  
Aluminum foil  
Two clothes pins

Time to complete project: 3 minutes

Tear off some aluminum foil slightly bigger than your cardboard. Wrap it around and secure with tape. Use a pair of clothes pins to create a stand. Use the reflector to soften the shadows created by your key light source.



#### **No. 5: Custom chest strap**

It's convenient to wear my camera around my neck, but if I'm hiking in the woods, the side-to-side bouncing with every step I take gets old. Plus, I've reached down to pick something up off the ground and had the camera swing and hit me in the head. To prevent that from happening, I figured out a way to make a simple chest strap.

What you'll need:

2 yards of 1.5- or 2-inch wide soft waistband elastic  
6 inches of 3/4-inch wide iron-on Velcro (1 strip of sticky Velcro and 1 strip of fuzzy Velcro)

Ruler or measuring tape  
Scissors  
Iron and ironing board

Time to complete project: 15 minutes



1. Hold the elastic around your ribcage. Add 9 inches and cut the elastic. Mark the point where the elastic overlaps.
2. Because the Velcro is half as wide (or less than half as wide) as your elastic, you'll need to use two rows of it. Work on the ironing board and position two 1.5-inch fuzzy Velcro pieces on the point where you marked the elastic. Turn the elastic and Velcro over, so the elastic is facing up, and press, using a fairly hot iron, for about a minute. Let it cool.
3. Position two 1.5-inch sticky velcro pieces on the end of the elastic farthest from the fuzzy ones you just ironed on. Make sure the sticky velcro is on the **OPPOSITE** side of the

elastic. When you have it in place, turn over with the elastic facing up, and press for about a minute. Let cool.

4. Repeat the process for the other side of the elastic.
5. When you put the elastic around your ribcage and secure it using the Velcro, it overlaps with a 6-inch section of elastic. Make sure this section is directly in front of you. Open one side of the velcro and slide in your camera straps. Close the velcro. Now your camera is corralled in the "elastic pen" and won't bounce around as much. You have easy access to your camera by opening one side of the Velcro.



## No. 6: Waterproof camera cover

If there's any chance of rain, you'll always want to have a way to protect your camera.

What you'll need:

Shower cap, plastic dinner plate cover, sealable plastic baggie or doggie poop bag

Time to complete project: 2 minutes

Fold up your choice of waterproof cover, tie with a twist tie and put in your camera bag. I included doggie poop bag because one time I was at a city when a storm suddenly blew in. I was carrying my iPhone but nothing else. Fortunately I spotted one of the poop bag dispensers just in time to grab a bag and wrap up my iPhone before I got drenched.

## No. 7: “Drypers”

Sometimes you want to sit down to get the shot and the ground is wet. Here's an easy way to keep your bottom dry.

What you'll need:

1 kitchen or trashcan garbage bag with pull string (if you're a big person, go with the larger size)  
Scissors  
Safety pin

Time to complete project: 4 minutes

Fold bag lengthwise. On the unfolded side cut away a triangle large enough to get your foot through. Unfold the bag. On one side, in the middle, cut the pull string. Safety pin it together. Fold up the garbage bag, put in a small sealable plastic and keep in your camera bag.

## No. 8: Power cord ID tags

Never waste time looking for the right cord ever again.

What you'll need:

A handful of bread loaf plastic tabs  
Finepoint Sharpie

Time to complete project: Depends on how many cords you have and how long it takes to figure out what they go to

Gather up your cords. For each one, take a bread loaf tab and write what it is, such as “Olympus,” “iPhone,” “hand warmer,” etc. Slip the tab around the corresponding cord.



## No. 9: Filters and special effects

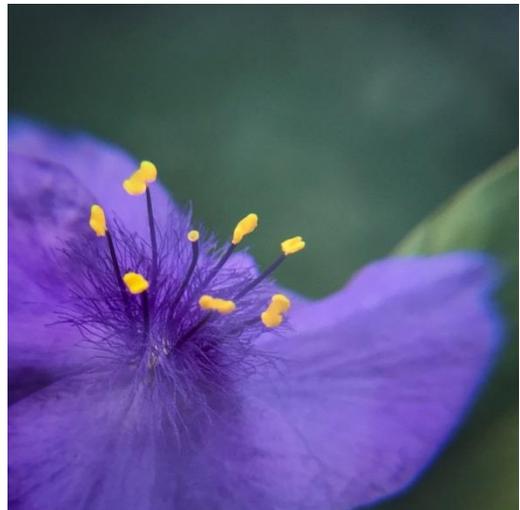
You can create all sorts of in-camera effects on the cheap.

What you'll need:

Clear plastic (blister packages, vegetable containers, etc.)  
Scissors  
Colored markers  
Painter's tape  
Camera hood

Also try:

Petroleum jelly



Mascara  
Magnifying glass  
Wine glass or goblet  
Water  
Food coloring

Time to complete project: 1 hour

Cut circles out of the plastic to fit over your camera lens and inside your camera hood. Use the colored markers to create different colored filters. Attach the camera hood on your camera. Place a filter inside it and secure with a few small strips of painter's tape. You can get all sorts of colored effects this way, depending on how many colors you use and the orientation of the filter. Color half of a filter blue for the sky and the other half yellow or green. Or create a Lomo camera effect with blotches of blue and red. To create a soft, fog-like effect, use a little petroleum jelly. For a grunge effect, play with mascara smudges.

For a macro effect, use a magnifying glass in front of your lens. Play with the distance. I like to photograph flowers this way.

For a fisheye effect, fill a wine glass or goblet with water. The image will be upside down, but you can correct the orientation in post. For a fun effect, try adding a drop of food coloring.



### No. 10: Solar filter

You don't have to spend big bucks for a solar filter.

What you'll need:

Pair of cheap cardboard solar viewing glasses (make sure the panes of mylar are unscratched and in perfect condition)

Black cardboard

Scissors

Painter's tape

Time to complete project: 15 minutes

Cut off one of the eyepieces from the pair of solar viewing glasses. Cut out a cardboard ring that will fit into your camera hood. Attach the eye piece to the cardboard ring and secure inside camera hood with painter's tape.

Or

IR 14 glass from welders goggles to fit on top of your



camera lens

Time to complete project: 1 minute

Place the welders glass on top of your lens.  
Put your camera hood on backwards,  
holding the welders glass against the lens.

