

# Using the ColorBuild target template

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The ColorBuild target comes with the 24 standard Classic Color Checker (C3) patches in place. It is the same size (3-3/8" x 2- 1/2") as the original Mini Color Checker that is now discontinued. Included with the package are a number of pre-cut patch inserts allowing you to choose your own color patch inserts. It weighs 2.5 oz. The above form factors are simply a place to start.

A smaller version (2" x 1.5") with an equal number of patches is also available and a larger A3 (11.7" x 16.5") size with 300 patches is currently being manufactured. With slight modifications to the back plate, transmissive materials can also be used.

The patches can be removed and replaced with your own choice of reflective materials using the current setup and standard paper thickness up to light card stock depth.

## Features / Benefits

- User configurable and replaceable target feature choices.
  - The user is no longer constrained to pre-manufactured matrices of target features.
  - Individual singular feature choices – colors, textures, resolution, unique IR/UV content, 3D features.
  - User can easily remove/replace blemished, obsolete, or faded target features.
- Customizable sizes and layouts with small upcharge.
- Neodymium magnetic inserts for vertical mounting on magnetic receptive surfaces
- Self vertical supporting on flat horizontal surface.
- Transmissive or reflection material possible

## Why would I want to choose my own set of patches ?

The standard C3 patch set was designed for consumer photographic applications in mind. These colors (blue sky, foliage, morning glory blue, etc.) are not representative of the near neutral and pastel colors typically found in cultural heritage imaging applications. A secondary benefit of this target is to replace damaged or blemished patches without having to replace the entire target.

## How do I choose my own set of patches ?

The choice is completely up to you. Some examples are:

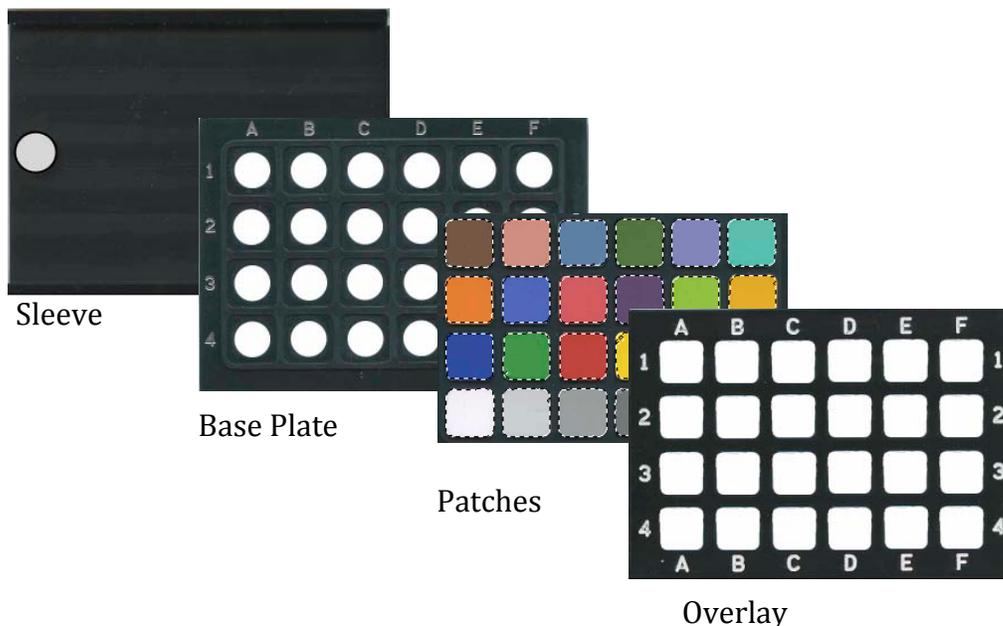
- Cyanotype, albumen, or platinum toned media of early photographic processes.
- Near neutrals or pastel colors commonly found in historic documents and maps

- Specialty materials with
  - o unique IR or fluorescent spectral properties.
  - o Textured materials
  - o Metallic or specular materials
- Imagine It ! - Spatially varying reflective features such as halftones, different textures, resolution features. Anything that can be suitably located and fastened to the supplied blanks provided it is not too thick. (see restrictions below).
- Visit the paint store. Selecting colors or textures from free paint swatch samples at paint displays is free. If you are wondering what the actual color characteristics (spectral signature or Lab values) are, you may
  - o Measure it yourself.
  - o Send us a sample and ISA will measure it for you
  - o Tell us what the manufacturer and paint name is and we will locate it at a store here and measure it for you.

### How is the target assembled ?

The target assembly consists of four pieces

- **sleeve** - holds the remaining three pieces in place even when dropped. Also has magnetic inserts.
- **base plate** - magnetic receptive base with square depressions to hold and constrain the patch positioning.
- **patches** - the color patches are mounted onto a flexible adhesive magnetic material.
- **overlay** - this piece annotates the columns and rows and fits over the slightly protruding patches fitted onto the base plate. Note, this piece is back milled so that its effective thickness when assembled is sufficiently thin to allow for raking angle lighting without significant loss due to shadows.



## **How to remove, create, & replace patches.**

### **Removing patches**

- Perform this operation over a tabletop surface
- Remove the sleeve by sliding it from the rest of the target.
- The remainder of the target will remain intact but will not withstand a drop test.
- Remove the thin overlay from the base plate by gently grabbing the sides of the target and lifting. The patches should remain in place. You can even turn the remaining base plate and patch assembly upside down and gently shake without the patches falling out.
- The holes on the back of the base plate are meant to aid in patch removal. Using your pinky or index finger (not that middle finger!) push from the back of the target and lift any given patch from its position.

### **Creating new patches**

- A number of precut adhesive magnetic patches have been provided. Removing the white covering exposes the adhesive backside.
- Identify the reflective material of interest for a new patch. Paper thickness up to 12 mil (light card stock) can be accommodated with the supplied precut magnets. Thinner magnetic material can be used in the future to accommodate thicker reflective materials.
- Place the “good” side of the new patch material face down and place the exposed adhesive side of the magnetic material on the topside of the new patch material.
- Trim the excess material from the edge of the magnetic material.

### **Replacing patches and reassembly**

- Place the new patch(s), magnetic side down, into any base plate position. You can often hear an audible click or feel the click of the magnet onto the base plate.
- To ease the proper placement of the overlay, visually inspect that the patches are reasonably aligned and not too crooked.
- Replace the overlay piece with the same orientation as indicated by the base plate alpha numeric characters
- Manually shift, jiggle, or rotate the overlay until it is flush on all sides with the base plate. Sometimes this takes a little practice but you’ll get the hang of it.
- Tightly holding the overlay and base plate together, slide it back into the sleeve. Make sure that the sleeve lip does not bisect the space where the base plate and overlay meet. The entire thickness of the base plate and overlay assembly should fit in the sleeve slot. Often, sliding in one edge at a time eases the reassembly.
- Inspect the exposed ends of the inserted target to insure that the cover plate is flush with the base plate and not bowed.
- Occasionally, removing and re-shifting the overlay may be required in order to get a flush fit of the overlay with the base plate.

- Once fully assembled the target assembly will pass a 3 ft. drop test.

### **Unexpected features**

- The sleeve material is sufficiently thick to allow the target to stand on-end without other support.
- The embedded Neodymium magnetic allows for mounting on magnetic receptive vertical surfaces.
- The sleeve can be removed and replaced with a deep-well sleeve that will act as a light trap. By removing any one of the patch inserts the back plate hole will behave as an entry for light with no exit strategy option. Please contact us at [info@imagescienceassociates.com](mailto:info@imagescienceassociates.com) for more information on this option.