## Color Mixer

## Goal

The Color Mixer is a simple tool that helps finding the best mix of paint for a given color.

## Beware!

This tool is just a help, it is not the ultimate reference for color mixing and it is not meant to replace your eyes and your personal interpretation of colors. Also, as you should do when mixing real paint, always try your mix before applying it to the model!

## Choose the reference

First choose a reference color by taping on the reference color chip. the choice is made in a standard or paint manufacturer color chart. You can also get a color from an internet website by taping on the pipette button. On iOs 4 and later, you can also pick a color directly from the back camera by taping on the camera button. Earlier iOs version allows the use of the camera via the standard camera interface. The photo album is also available from this screen. Beware, the camera is not a colorimeter, so the camera can only pick approximative colors.

## Choose the paints

Then choose one or more paint of your choice in the paint manufacturer list by taping on the desired color chip. Here, only paints, not color standards, are allowed, as this is what you want to mix, after all :)

Once a paint is chosen, the other two paints are chosen from the same manufacturer to speed things up. This is because it is highly recommended to mix color only from the same maker due to differences in paint composition. It prevents you to make the beginners mistake to mix, let's say, Humbrol Enamel with Tamiya Acrylics. (Yes, we all know, you've done it at least once :). The translucent paint and, of course, special paints (thinners, bases, ...) are removed from the list.
Tip: There is an option in the application settings to bypass this behaviour thus allowing to mix between different paint brand. Use it at your own risk :).

A word about the "Tint" selection. This selection is there to try to find the best base color to match the reference color by adding pure black and white on it so that the mix is easier to find. Beware that matching to black and white is not always the proper solution but it's the most common one. The Delta " $\partial$ " result might be a little bit different than the mix as we use different rounding (here integer ones) to speed things up. Also the term "tint" is not really good (but we haven't found a better term yet:).

If you choose different finish between paints, a warning sign and message will appear. The computation will still take place, however, the real finish won't be computed. It is quite hard to compute that as it highly depends on the paints themselves. The metallic paints are available, however, mixing these paints using the application will give poor results due to the nature of the paint.

You can cleanup your paint selection by shaking the
device once, it'll cleanup all chosen paints. Another shake cleans the color reference.

## Mix

Now, you can act on the sliders to find the mix you want. Be aware, that the mix is computed by taking for granted that every paint from the manufacturer have the same density of pigments and the same opacity. Which of course is not always true :(, so the final result might be different. The small delta $\partial$ sign is here to guide you : the closest to zero it is, the best the mix is.

Mix are always done by using parts (max 20, modifiable in the application settings). To work with measuring jars, the percentage is displayed. By taping on it you can switch between cumulative percentage, cumulative parts or percentage.

## Auto compute

When at least two colors are chosen, the small calculator icon will be enabled. It allows the application to find the best mix to approach the reference. For it to work the best, you should choose a close color from a manufacturer then one dark and one light base (As you will when mixing real paints). Once the mix is computed, it is recommended that you play with the sliders manually a bit (+/- 1 or 2 part) to try to find a better mix. This is because calculations are based on color maths which can be different than the way your eye perceive colors.

