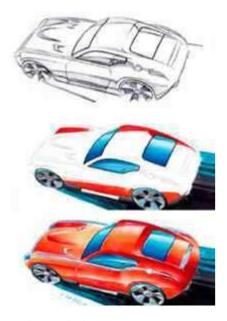
Tutorial Rendering with Marker and Airmarker by Wayne Westerman Introduction

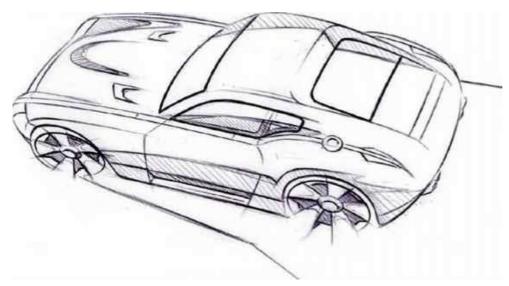
Last Updated on Wed, 13 Sep 2017 | Car Drawing

As a designer in the auto industry the majority of my time is spent creating and communicating innovative design ideas for the vehicles you might be driving in 3 to 5 years time. The spectrum of ideas ranges from the sculptural development of completely new exterior form languages through to technical solutions for cup holders.

Unlike engineering there are no set formula to solve any of these design conundrums; it simply comes down to creativity and problem solving. Most designers have their own sources of inspiration (architecture, computer games and nature to name a few) and will draw upon them to generate new design solutions, often ranging from the sublime to the ridiculous. Having settled on the most appropriate solution it is the designer's job to present the idea to management using simple sketches, colour renderings and digitally modified pictures. The following step by step guide explains the basic marker technique I use to illustrate exterior design ideas, 'colour-by-numbers' for grown-ups really! Rendering with Marker and Airmarker

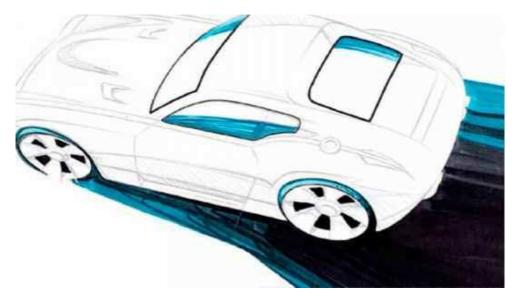


1: The Underlay



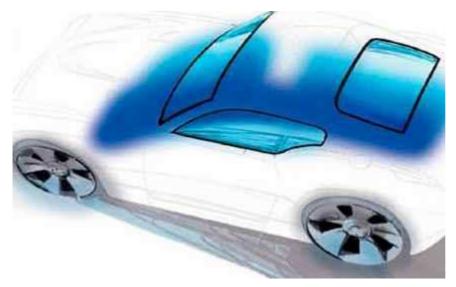
The line work can be either pencil or pen but should be dark enough to show through a piece of marker paper or vellum when placed underneath. The view chosen should clearly show the main design theme, in this instance the chrome strip running along the shoulder of the car. Lighting and colours

Before starting the rendering try to visualise the finished sketch and decide upon the position of the light source. This will determine which surfaces are in shadow and where the highlights will fall.



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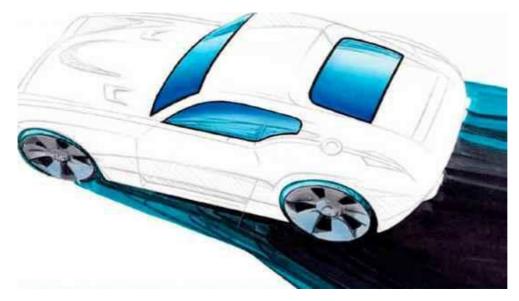
Secure the underlay in position and lightly trace the line work for the wheels and glass areas (DLO: daylight opening). Use either biro or pencil, but choose wisely, some brands of marker will pull the colour of the pencil and make biro lines bleed. So practice on a scrap of paper to ensure your mediums are compatible. Always apply the lightest colour first adding darker shades to create more depth (note: 2 or 3 shades of one colour can be achieved simply by going over the area with the same marker). For reflective surfaces such as glass allow the marker to dry before applying additional layers of colour. This will create more contrast, a characteristic of highly reflective materials. For non-reflective areas such as tyres it is better to keep the colour edge wet while applying darker shades creating a much softer tonal transition.



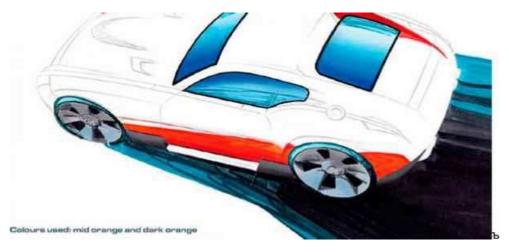
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3: Graduated tones - Airmarker/pastel

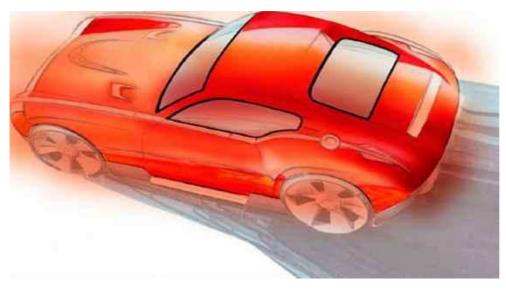
Air marker is a cheap, quick alternative to an airbrush. Colour is applied by spraying air across the tip of the marker, creating a targeted mist of ink. Shaved pastels give a similar effect. However, air marker is quicker, creates more intense colour and eliminates the hassle of trying to colour match pastel to the marker as the same marker can be used to apply both flat colour, as well as the graduated tones of the air marker. Place low-tack masking film over the entire drawing and with a scalpel carefully cut around the DLO and wheels. Although different colours will be applied to the two areas the distance between them is sufficient for them to be rendered simultaneously without any overspray from one area affecting the other.



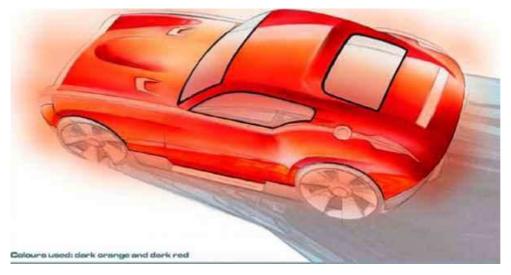
Here all of the masking film has been removed and the drawing can be assessed more clearly. If the graduated tone is not dark enough, re-position the mask and add more colour. Alternatively progress to the next step.



5: Body colour - marker The technique is identical to that used in stage 2. Remember, always lay down the lightest colour first and because the bodywork is glossy let the marker dry before adding darker tones to create more contrast. This will give the impression of reflections in the paintwork. To achieve a crisp edge it is better to apply the marker in quick strokes - too slow and you will get a wobbly line. Practice first holding the marker just above the paper; only applying the colour when you feel confident your hand is following the line on the underlay. Your confidence will grow with practice. Don't worry if the marker bleeds or the line is wobbly - use a similar colour pencil and a flexi-curve to tidy it up.



6: Body colour airmarker (stage 1) Similar to stage 3, place low-tack masking film over the entire sketch. This time using the scalpel to cut and remove the film covering the bodywork. The same markers from the previous stage are used with the air marker to apply smooth graduated tones.



7: Body colour airmarker (stage 2) Because the bodywork has more complex surfaces than the DLO it may be necessary to cut additional masks to define features such as the wheel arches, power-bulge on the bonnet and depression around the tailgate. With the masking film still in place, cut loose masks from paper and hold in position with your free hand. Working in this manner allows you to quickly lift and replace the paper masks to check your progress.



8: Details and shutlines

Most of the hard work is done at this stage, but care is still needed, as you don't want to make mistakes and ruin all your hard work. The chrome strips running the length of the car and chrome air outlets on the bonnet could be masked and rendered using air marker; this would be quite time consuming and require too much effort for such a small area. The quickest way and just as effective for small details is soft colour pencil - here pale blue was used to simulate reflected sky and dark grey to define the edges



9: Highlights

Highlights really bring sketches to life. But, before you go crazy with the paintbrush and white gouache think about the direction the light is coming from and try to be consistent with the shadows. However this is a sketch so there is some artistic licence. Choose where to place some major accents - dont highlight every edge on the car.

The final sketch

There are many ways to render cars and this is just one of the techniques used in the industry. A similar process can be used with computer packages such as PhotoShop and Corel Painter; the finished results will be slightly different but both techniques will sell the idea. In some instances it is better to present many quick pen sketches as used for the underlay to share your ideas before spending several hours on a full colour rendering. Rendering is after all just an advanced technique of colour by numbers, which most people can learn. The real skill is being able to sketch your ideas in the first place and this just comes down to practise!

Wayne Westerman is a designer in the Advanced Design department of General Motors Europe. He previously worked for Hasbro Europe and is a graduate of Coventry University.