Outdoor Sign Project

By Mike Fruciano

Creating laser-engraved signs for outdoor use is all about choosing the right material for the job. Outdoor materials must be ultraviolet (UV) resistant as well as be able to handle whatever the elements can throw at them such as temperature, moisture and corrosive ozone.

Developments in laser friendly materials have created several excellent options for outdoor applications. Outdoor signage is an expanding market, and these materials offer options for both cost and durability. UV-resistant plastics such as Rowmark Metalgraph plus, CerMark on stainless steel and Horizons Dura-Black are all good options for outdoor signage, and all produce professional-quality results.

Our project is designed for an arboretum and has a required life of at least eight years

(at left) The completed project installed next to the plant ready for years of service.

Mike Fruciano is the co-owner for LaserBits and Laser University. He brings over 18 years of experience in the laser field and is a frequent presenter and author on the subject. Mike's background is in electronics engineering and product development, and he can bring technology topics into practical terms. When Mike is not at work, he enjoys riding and restoring vintage motorcycles. Mike can be reached at mike@laserbits.com or at 800-733-7705.
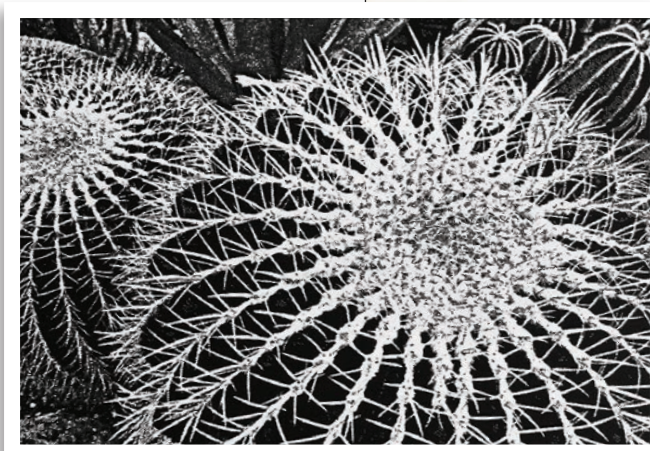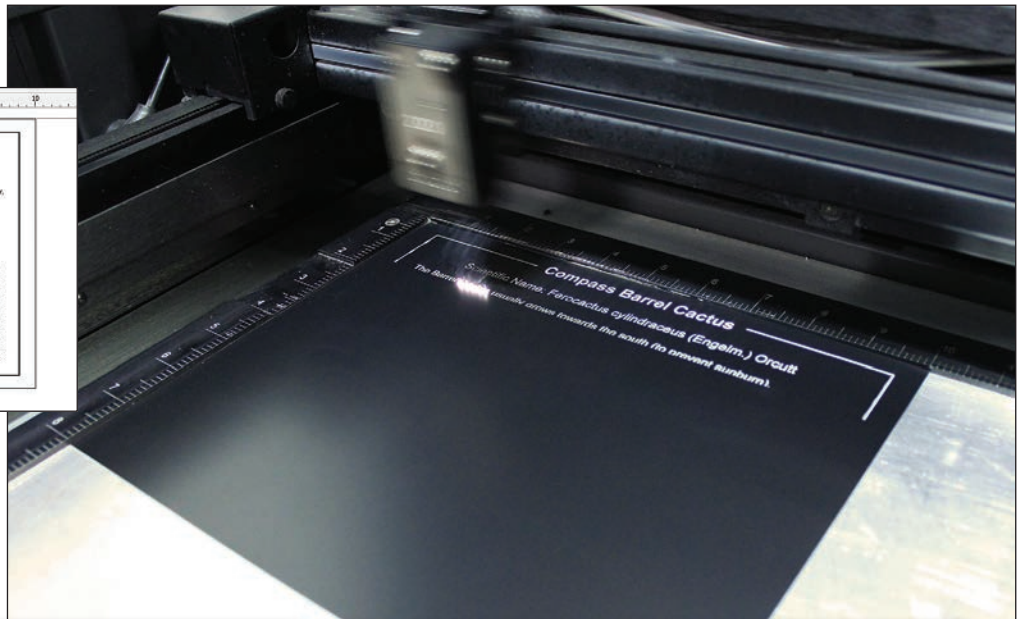

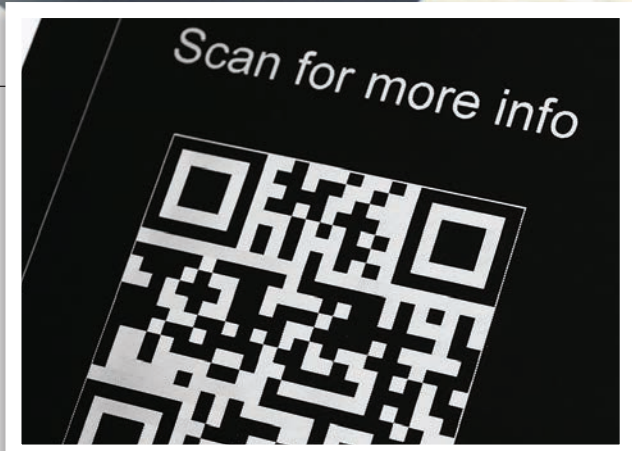**DuraBlack sheet laser engraved and ready to be placed outdoors.**
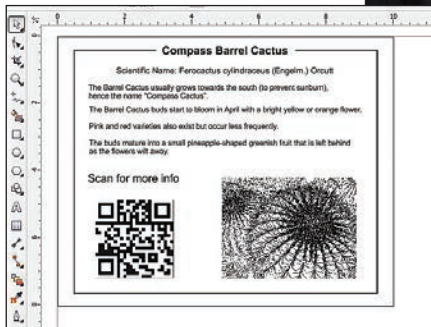
The completed CorelDRAW layout ready to print to the laser engraver.

DuraBlack is laser engraved at high speed.

Finely detailed photo process in PhotoGrav software.

DuraBlack creates high-contrast engraving ideal for QR Codes.

in the blistering sun of the Southwest. The project includes a text description, a photo of the plant and a QR Code that can be scanned.

Based on the specifications of this project, we chose the Horizons DuraBlack material in .020 thickness. The DuraBlack is rich, black-colored material sheet which laser engraves a silver-white color. This reverse-color process will require inverting the photograph to engrave in the correct polarity. A metal shear was used to cut the DuraBlack to a 10x8 inch sheet.

Step 1
Using a page layout program such as CorelDRAW, create a 10x8 inch rectangle that will represent the final project size.

Step 2
Process the photo in PhotoGrav or similar photo-processing software using the Anodized Aluminum material setting. Using the Anodized Aluminum material setting will invert the polarity of the photo for the black material. The processed photo size is 4 x 3 inches.

Import the processed photo in the layout software and place it in the 10x8 inch rectangle.

Step 3
Create the QR Code using a code creator website like kaywa.

com. Right click on the generated QR Code and copy it. Paste the QR Code into the DRAW layout. The QR Code was sized to 2.5 x 2.5 inches.

Step 4
Add the decorative line around the perimeter by creating a rectangle with a 2.0 Pt line thickness. To create a break in the rectangle for the title text, create a small rectangle with no outline and a white fill and place it over the 2.0 Pt line. Add the title text on top of the white box.

Step 5
Add the body text and align all the components of the layout. The project is now ready to engrave. Place the 10x8 sheet of Dura-Black in the laser-engraving system and print the CorelDRAW file to the laser. Typical settings for a 50-watt laser system are 100% speed and 35% power.

ENGRAVING TIPS
Keep the power setting as low as possible for crisp engraving results. A power setting that is too high will create distorted letters. Power settings that are too low will create a light gray color engraving and should be increased to achieve a silver-white color. **A&E**