

Light Show

by Robert Viviano

Every once in a while—if you're lucky—you have a great customer who allows you to cut loose on the design. That was the case with this particular project, where we created a multilevel space featuring a Pennsylvania bluestone patio on the ground below, and a composite deck above to take advantage of the home's great views.

We designed the deck with strategic curves to create panoramic views at any point along the rail, and we partially covered the deck with a roof featuring a barrel-vaulted mahogany ceiling and arched glass panels in the gable. A neatly compact 5-foot-diameter wrought-iron spiral staircase provides access between the two levels.

One of the biggest challenges of the

project, however, was re-creating the lighting effects that had been built into a previous deck that the clients had owned in another state. They wanted to be able to control the color of each railing segment on the deck and on the patio below, as well as the lighting along the perimeter of the deck and the roofline. Each staircase tread would also have its own light source.

Special Effects

To help meet the homeowners' design goals, we started by installing Azek Premier rails, which have a recessed area under the rail supports that provides a perfect hiding place for the digital RGB LED lighting strips we used on the project (usledsupply.com). We also

needed transparency and the ability to curve the rail, so we opted for the Invis-A-Rail infill system (invis-a-rail.com). The light from the LED strips reflects nicely down each stainless steel rod and can be seen from either side, even though the strips are mounted on the inner side of the rail only.

With an electrician's help, each light segment was individually wired and home-run into the house to a large circuit panel (we became experts on hiding wires). This panel is also connected to a wall-mounted RGB controller near the door looking out on the deck. The controller can be operated manually, or it can be pre-programmed to dim the lights or set colors and color changes automatically. For example, "program #8"—which



The deck is illuminated by digital RGB LED lighting strips, which have about 10 individually controllable LEDs per foot.



Each low-voltage LED on the flexible strip is capable of displaying red, green, or blue light.



The circuit for each rail segment is wired to a panel in the basement.



The basement panel is connected to a touch-screen DMX controller mounted in the living room.



LED strips tucked underneath the nosing of each tread illuminate the staircase.

the clients used on the Fourth of July—lights the deck up in red, white, and blue.

While the cost of the digital controller was nearly \$1,000, I thought that the LED light strips and related wiring were relatively inexpensive. The total cost for all of the lighting components was about \$3,500, and the electrician's time cost another \$1,500 or so. My clients report that they can easily spot their deck while flying into the Pittsburgh International Airport. And the neighbors love it too ... I think. ❖

Robert Viviano owns Deck the Yards LLC, in Pittsburgh, Pa.