



## CASE STUDY

# AMERICAN BRIGHT IS A WINNER AT THE SLOT MACHINES



# THE COMPANY'S ENGINEERS PRODUCED CUSTOM-DESIGNED LIGHT STRIPS THAT WILL ATTRACT ATTENTION TO THE CLIENT'S SLOT MACHINE.

## INTRODUCTION

Engineers that design slot machines want their games to stand out amidst a large pool of competitors. Industry leaders know that few things are as important as the visual and decorative components that line the gaming consul. In the glitzy world of casinos, that means bright lights that trace the machine's screens and structure. After testing flexible light strips from many vendors as well as building

their own light boards from sourced components, the client turned to American Bright for guidance and help in design. Here, engineers with experience and technical know-how brought together the specific needs of the client to produce an innovative and flexible strip lighting system for their machines.







## THE GOALS

The client designs slot machines that are popular in many casinos across North America. In this setting, gamers' eyes are drawn toward the lights of dozens of different gaming possibilities. And it's not just the game itself that grabs a potential gamer's attention; the visuals are equally important. For example, a simple string of blue lights where one bulb is brighter or dimmer than the next might be passed over for a more colorful, interesting option. The client knows this is important but also realized that it would take significant time, energy, and money to develop a fully functional and aesthetically pleasing light board in-house.

American Bright collaborated with the client to solve the problem by creating an innovative design of flexible light strips, all designed according to client specifications. The client's goals became clear through many face-to-face meetings with American Bright's engineering team. Already knowledgeable and experienced in designing flexible light strips that use RGB and IC (a type of chip)

addressable LEDs, American Bright had no trouble developing a design that was easy to incorporate into the existing machines and that made them stand out visually. Through the use of the IC, each individual pixel can be controlled, creating infinite design potential and a more immersive gaming experience.

By removing the need for the client to identify and acquire every component needed for this project, American Bright greatly expedited the development process and reduced the time to produce a final product. The client and American Bright shared ideas during many meetings and discussions to determine the LED types, pixel sizes, data path options, and light strip lengths that would ultimately be used. Multiple rounds of sampling and testing resulted in a solution in the form of a UL listed flexible light strip. American Bright engineers were able to modify these strips resulting in a final product that was a perfect fit for the client's slot machine designs.



## CHALLENGES AND SOLUTIONS

To ensure that the final product worked with existing machine controls and that the color and brightness were consistent within each sequence of lights, the client required a specific IC and LEDs. Before partnering with American Bright, the client had purchased components and was piecing them together onto rigid boards. They found the process time consuming, expensive, and inefficient.

American Bright came to the rescue with their experience and expertise in working with flexible light strips that are ready to install directly onto machines. They started with their existing product line that simplifies the work of adding light to any application. Still, the American Bright engineering team made many adjustments and modifications to the basic in-house design to assure close adherence to the client's needs. One innovation brought to the project was using RGB addressable LEDs with a built-in controller that's popular in gaming machines. American Bright provided a complete design using these specific components, so the client no longer had to deal with outside sourcing.

For flexible light strips, American Bright offers wavelength sorting to ensure that LEDs are in the same bin, or wavelength interval, so that the entire lighting sequence will be a consistent hue. American Bright can test bins and forward voltage, brightness,

and wavelength to make sure that the final product meets the needs of the client. That's a big factor for applications that require uniform colors, and is particularly important when many LEDs sit immediately next to each other.

American Bright's standard light strips are offered in 5V, 12V and 24V DC LED products available in standard lengths of 5 meters. Longer or shorter strips can also be made upon request. The product is available in white color temperature 2700K-6500K, red, amber, green, blue, RGB regular, RGB addressable, and RGBW. The client can choose from different IP ratings for different levels of protection from dust and water (IP20, IP65, or IP68). American Bright provides a three-year warranty, and the strips are UL listed so the client does not have to spend time or money undergo certification.





## BUSINESS SUCCESS

The client experienced many benefits by working with American Bright, including product design, testing and performance evaluation. The engineering team responded quickly and efficiently to the client's requests and was able to design and identify components that met the client's requests. The end product provided stellar performance compared to competitor light strips, and resulted in an order that's now going into production with timely shipments.

American Bright's solution saved the client time and money compared to the cost of designing and building the product on their own. The process also resulted in the client seeing the work ethic of the team at American

Bright. American Bright prides itself on being responsive while also dedicating time to learn the specific needs of an application and the client's concerns. If a solution is not readily available, American Bright's engineers will work with the client to create a solution specific to their needs.

At the end of the process, clients are assured of receiving a product designed for them by experienced engineers and technicians. While this client wanted customized light strips, other gaming machine designers may have needs that can be met using off-the-shelf LED products. Regardless of the simplicity or sophistication of the project, American Bright can help all their clients win and stand out in a competitive field.



