

LightArcade

Arduino-based arcade game with WS2812 LED strip, similar to 1980's Track & Field

Made by Greg Schroeder & Scott James

We are members of [Suncoast Makers](#)

Hosted in Sarasota, FL at [Suncoast Science Center](#)

We wanted to create a very interactive and fun video arcade game that could be enjoyed by all at the [Orlando Maker Faire 2015](#). I do most electronic projects with Eagle CAD and homemade PCB, with switch debouncing done in software.

However... this time I wanted to try some different techniques.

Emphasis was placed on **learning new build styles** rather than just "best" practice. It worked, I've learned a lot and had lots of fun doing it!

Goals in the hardware/software build:

1. Use a veroboard, with DIYLC for layout, instead of custom PCB.
2. Use DIYLC (Do It Yourself Layout Creator) instead of Eagle CAD.
3. Use custom plugs with Silicon RTV and Sugru connectors instead of off-the-shelf PCB connectors. This seems silly, but I really wanted to try it.
4. Arduino contains entire Game – pushes text reports on Serial port to Raspberry Pi.
5. Pi only used for images /sounds and scoreboard, using Pygame.