

THE WIZARD OF LASERS

A pioneer in the laser display industry, Stephen Heminover has animated the “Big Bang” and made player introductions at the United Center iconic



Stephen R. Heminover '79 LAS
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You've probably viewed his work countless times, in person or while watching television. A booming voice announces over the United Center's public address system, “And now...your Chicago Bulls!” The crowd erupts with applause and cheers. The interior lights are extinguished. Brilliantly colored lasers slice through the air, dancing around the stadium as the starting team lineup is introduced.

The wizard behind the electronics of the Chicago Bulls' (and Blackhawks') well-received laser show is Stephen Heminover, founder and president of Aura Technologies Inc., a pioneering firm in the laser display field that serves clients in such markets as sports, education, recreation and entertainment. (He is also a founding member of the International Laser Display Association, an industry trade group.)

Heminover's fascination with laser technology started at age 13 when he acquired his first laser from Edmund Scientific for \$99 in 1968. One of his first laser applications involved shining a beam through his mother's wedding-ring diamond “to make a pattern of dots all over the ceiling,” he says.

However, it wasn't until Heminover saw his first full-fledged laser show at the St. Louis Planetarium in 1975 that he realized what sort of visual impact the technology could have. “I was just mesmerized,” he recalls. “I said, ‘I have to do this.’”

At UIC, Heminover honed his software design expertise while working in the Electronic Visualization Laboratory, an interactive, real-time computer graphics research center. It was there that he reportedly wrote the first laser graphics programming language, and found a mentor and future collaborator in Thomas De Fanti, UIC distinguished professor of computer science and then-head of EVL.

After graduation, Heminover worked

at Schaumburg-based Motorola as a software engineer in its mobile and cellular phone division; in addition, he moonlighted at home eight to 10 hours each night, perfecting his own laser software applications. This extracurricular activity paid off when he landed his first major client, the Alder Planetarium, in 1981.

“It had just bought a laser system, but nobody knew how to operate it or make it do anything,” says Heminover, discussing his role in designing the laser graphics for the Planetarium's astronomy shows. “One day [the staff asked], ‘Can you create the universe?’ They [then] showed [us] how the ‘Big Bang’ [happened], and we figured out the animation.”

Since then, Heminover's client list has expanded to include the University of Arkansas, Milwaukee Bucks and Carnival Cruise Lines.

To produce laser shows, “you have to master so many other disciplines,” explains Heminover. “You have to be an electrical engineer, physicist, plumber, artist and optical engineer.”

One of his proudest moments came at the Sears Tower where the Adler Planetarium was holding a party to announce its expansion. Heminover placed a laser on the Sears Tower's roof and directed the beam at the Planetarium's roof, miles away. “The sky was all fogged-in at night,” recalls Heminover. “At the moment we turned the laser on, it was [like] somebody looked down from the sky [and] blew away all the clouds. It was a beautiful show.”

He also takes great satisfaction in the learning opportunities Aura Technologies has provided to UIC students. “I get a lot of enjoyment out of helping other people achieve their goals,” says Heminover. “I guess that's what we do as a show company. We take somebody's dream and turn it into a reality.”

—Kevin McKeough