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Circuits

NEWS WATCH

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FIREWORKS

At Central Park's Coronation, 11,000 Chips-in-Waiting

In a display of computerized pyrotechnics, exploding fireworks shells will form a 1,000-foot-high vertical circle of light over the Central Park reservoir on Monday. The white-hot halo is the centerpiece of "Light Cycle," a three-part, four-minute fireworks exhibition marking the park's 150th anniversary. The display is scheduled to start at 7:45 p.m.

To create the circle, shown in an artist's rendering below, each shell is loaded with a microchip that can control the timing of its explosion to within one-hundredth of a second, compared with more than a half-second for conventional powder fuses. With the aid of computer modeling that accounts for wind speed and other factors, the pinpoint timing enables each shell to be precisely positioned at the instant it bursts.

Cai Guo-Qiang, the Chinese-born artist who created "Light Cycle," said through an interpreter that the chip-controlled shells allowed him "to use the sky as a canvas and draw at will."

Fireworks by Grucci, based in Brookhaven, N.Y., will launch the 11,000 shells in just 9 seconds, compared with the 8,000 shells it fired over 27 minutes during a display on the Fourth of July. A network of four laptop computers will issue the firing commands. Likening the circle-depiction process to the way images are formed on a television screen from small points of light, Phil Grucci, Grucci's executive vice president, called the shells "pixel bursts."

"Light Cycle" was organized by the public-art organization Creative Time and is being presented by the City of New York and the Central Park Conservancy. *Matthew Mirapaul*