

Hi-tech halo to mark Central Park's birthday Pyrotechnic pixels position huge ring of fireworks.

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HELEN PEARSON



Light Cycle will culminate with a 300 meter ring above the park.
© Cai Guo-Qiang

The pyrotechnic highlight of most birthdays is a ring of candles. But in honour of Monday's 150th anniversary of New York's Central Park, more than 1,000 microchip-controlled fireworks will explode together into a spectacular halo of light - on September 15.

The display, called Light Cycle, will be the centerpiece of a series of celebratory events to mark the Park's creation 150 years ago. The highlight of the show will be a 300-metre vertical ring, hovering above the park's central reservoir.

Chinese artist Cai Guo-Qiang has teamed up with Fireworks by Grucci, based in Brookhaven, New York. The company has invented hi-tech rockets dubbed 'pyrotechnic pixel bursts' that enable the artist to 'paint' in the sky, explains executive vice president Phil Grucci.

Traditionally, the position of a firework's explosion is calculated from the angle of its launch and the amount of powder needed to fire it skywards. The soaring shell also carries a length of burning fuse that determines when the firework detonates, accurate to within half a second.

Instead of a fuse, each pyrotechnic pixel burst has a small, electronic chip programmed to ignite at a precise moment. This heats a wire filament like that in a light bulb to ignite a bead of powder - and trigger the explosion within one-thousandth of a second of its designated time.

Grucci's team has custom-made 11,000 white rockets to explode at a precise moment and position in the sky - much like the pixels of a digital image. The huge ring, which will be preceded by three smaller, horizontal ones, will last for 15 seconds.



Central Park celebrates its 150th birthday on 21 July 2003.
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White night

Now beloved of New York's joggers, lovers, tourists and filmmakers, Central Park was once a swamp. Until, on 21 July 1853, the state legislature designated an area between 59th and 106th Streets as public land, and set about landscaping its meadows, ponds and formal gardens.

Cai Guo-Qiang's light rings are an attempt to represent the park's timelessness, with "amulets over the heart of Manhattan". They will be the biggest and most public test of the pyrotechnic pixels, which were tested publicly for the first time in June 2002 when the artist and firework team created a 150-metre rainbow across the city's East River.

In the first stage of the three-act Light Cycle, five pillars of light, each 180 metres tall, will spout into the sky. During the finale, around 700 shells containing pure magnesium, which burns like signal flares, will burst simultaneously and float down to illuminate the park.

There will be no dress rehearsal. The team is practising the art at night, firing from a bunker in the back of the workshop and filming the results. The display will take four days to set up and five laptop computers to coordinate. "The pressures are enormous when it comes to pressing the button," says Grucci.

Light Cycle will begin at 7.45 pm on 15 September 2003.