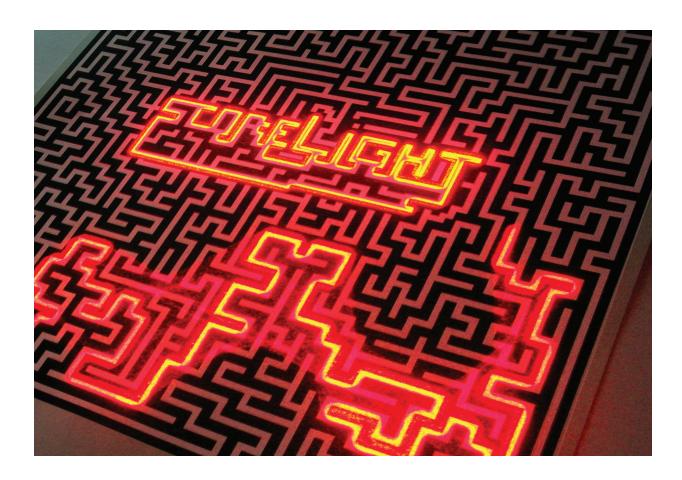
Alvaro Cassinelli Yusaku Kuribara Masatoshi Ishikawa

The University of Tokyo

Daito Manabe

Rhizomatiks



scoreLight is a musical instrument capable of generating sound from the lines of doodles as well as the contours of threedimensional objects (hands, silhouettes, architectural details). There is no camera or projector: a laser spot explores the shape just as a pick-up head searches for sound over the surface of a vinyl record, with the significant difference that the groove is generated by the contours of the drawing itself.

The preferred mode of operation is contour following. Each connected component of the image functions as a sound sequencer. Sound can be generated in the following ways:

- \bullet Pitch is controlled by the inclination of the lines, which generates a melody. Rotating the drawing transposes the melody to a higher or lower pitch. Tempo is determined by the length of the contour.
- Pitch is continuously modulated as a function of curvature of the lines. This mode of operation enables one to hear the "roughness" of the drawing.
- Bumps: extreme curvature indicates corners of the drawing. They trigger specific sounds (percussion, glitches, etc).

Other modes of operation include bouncing on the lines with and without "gravity." Sequences can be recorded and reused in the form of drawings (on stickers, for instance).

The purity of the laser light and the fluidity of the motion make for a unique interactive experience that cannot be reproduced by the classic camera-projector setup.

More information: www.k2.t.u-tokyo.ac.jp/perception/scoreLight/