Finger Painting with Planets

Tim Thompson – tjt@nosuch.com – http://nosuch.com/tjt

This installation uses your fingers and gravity to create graphics and music. The multitouch pads are used for several purposes. In one mode, the pads are used to place planets in space, and gravitational attraction between the objects produces graceful movements that are translated into visuals and sound. In another mode, the pads are used to play music directly, which can be looped. In a third mode, the pads are used to control sound effects. Knobs and buttons on the custom-built controllers are used to adjust parameters. A musical keyboard is used to select the notes that will be used in the music.
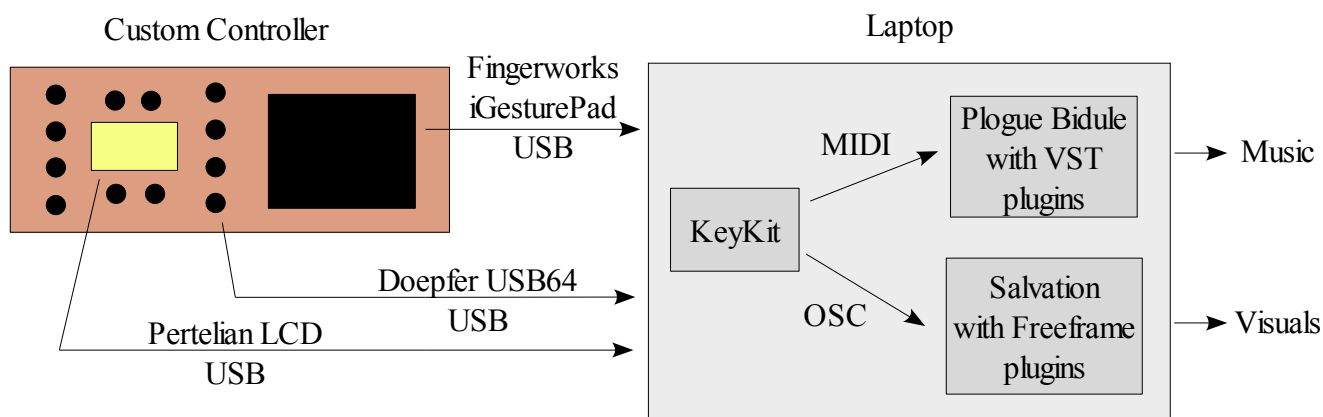
Buttons

GRAPHICS	Press to show a page of parameters that affect the graphics. The 8 parameters on the page correspond to the 8 knobs.
MUSIC	Press to show a page of parameters that affect the music. The 8 parameters on the page correspond to the 8 knobs.
CLEAR	Press once to clear all graphics and stop all music. Press three times (quickly) to reset everything to an initial default state.
SHIFT	Press to show the current value of all parameters on the current page.

Knobs

The function of each knob is indicated by its corresponding label in the LCD display. The two most important knobs are the upper-left knob and the knob just below it. The upper-left knob allows you to select from a set of presets, either graphical or musical depending on which page is currently displayed. The knob just below it, labeled "PadMode", allows you to control the current mode of the multitouch pad – this determines whether your fingers will place planets, play musical notes directly, or control sound effects.

Details

Musical notes are triggered when planets collide, visually indicated by horizontal and vertical emissions from each collision location. Collisions toward the left side produce lower notes, collisions toward the right produce higher notes. Holding down a chord on the musical keyboard will cause the the notes of that chord to be used in the music (whether triggered by planet collisions or played directly by the pads).   The arrangement of hardware and software is shown here:

Additional details can be found by visiting http://nosuch.com/tjt or emailing tjt@nosuch.com