

FINGER ART

Sean Liu
Grace Li
October 26, 2008

Abstract

Finger Art provides a method for artists to virtually paint using their hands. A camera keeps track of the location of the artist's hand, which serves as his or her brush. The goal is to simulate a real canvas for the artist through (1) a color palette, (2) paint saturation, (3) stroke velocity, and (4) brush orientation. Located on one side of the screen is a color palette, which the artist can dip his or her hands into much like an artist dips their brush into paints. Like a real painter, the artist can mix colors and saturate their brush with different amounts of paint depending on how long they leave their hands in the paint. Saturated brushes leave dense strokes, while dry brushes leave light strokes. The more saturated the brush, the longer the paint lasts. The camera tracks the velocity of the brush – fast movements lead to paint splatters, while slow movements offer steady brush strokes. The user will be wearing a glove with two LEDs attached to the index finger. These two LEDs represent the brush. Much like brushes are often thin and wide, the user can twist their hand to control the orientation of the brush during the stroke for thick and thin strokes. Our application will allow artists to paint virtually without the hassle of dealing with the mess of real paint.