

Sumi-Nagashi: Adding Corporeality to Digital Painting

“Sumi-Nagashi” is a digital interpretation of an original and traditional Japanese art. A user will experience this streaming installation literally and physically by using *Proactive Desk*, a newly developed desk-style force feedback device. Dynamic haptic control of changes of color and form, will arouse new inspiration in painters.

Virtual Feeling from Digital Colors

Inertia Power

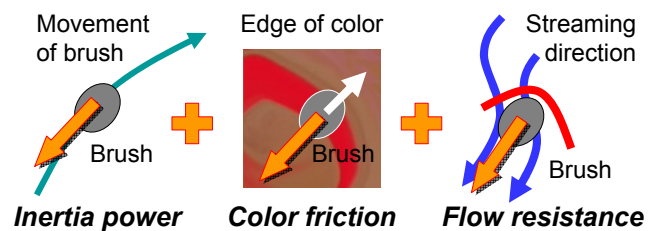
Virtual weight depends on the brightness of the painted color (ex. Light color has light weight.)

Color Friction

Friction depends on contrast and changes of colors (ex. Striped area has large frictions.
Edge of color has resistance.)

Flow Resistance

Resistance from virtual water's streaming.



Touchable digital painting Sumi-Nagashi

Functions

Painting Function

Simple digital painting functions are available.
(ex. put and smudge colors, stamp characters)

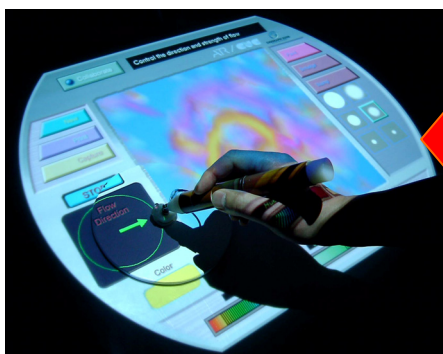
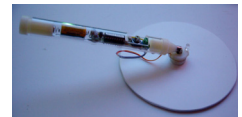
Streaming & Haptic Function

The digital canvas imitates the flow of water.
The colors are floating and flowing on the canvas. The user can feel the streaming visually and physically.

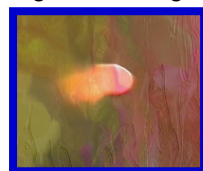
Hardware

Digital Canvas

The “Proactive Desk” generates two dimensional forces that act upon a paintbrush-like device. A mechanism that produces real forces is completely concealed underneath. This means that the user can operate the paintbrush to draw pictures much like operating an ordinary graphics tablet.



Digital Painting



Force Feedback

