



Digital sponge art

PRESENTATION

Motivation



Better control



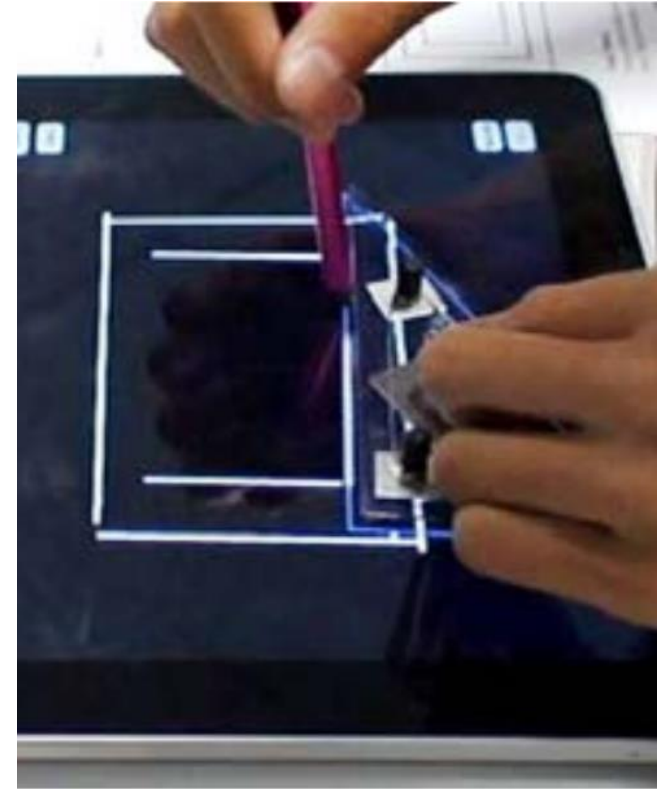
Innovative & Fun



Landscape painting

Related work

- By Blagojevic et al.¹
- Usage of tangibles (e.g., ruler)
- Creates simple forms easily
- Difference to our project: static forms

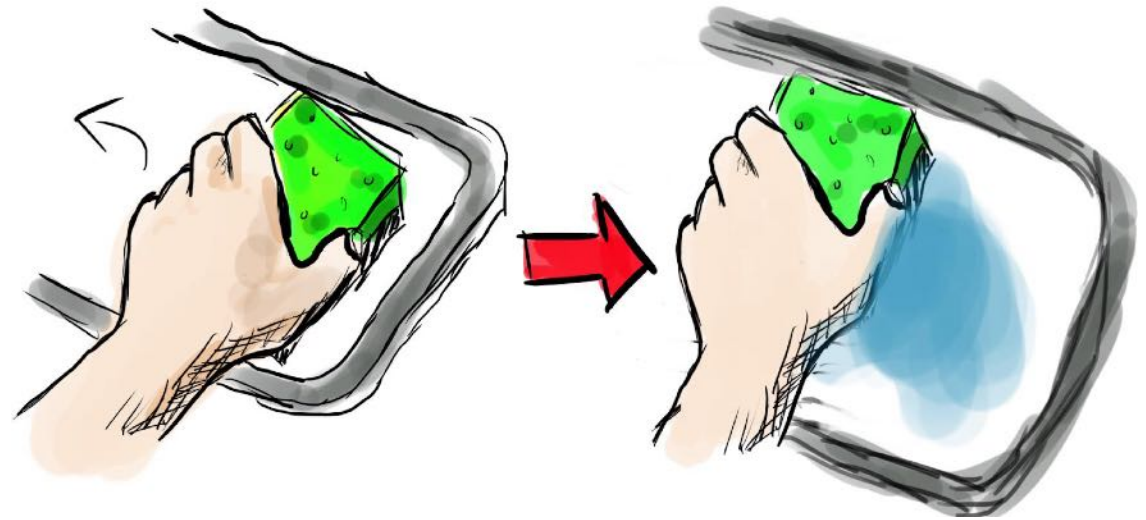


Interactions

WITH THE DRAWING SPONGE

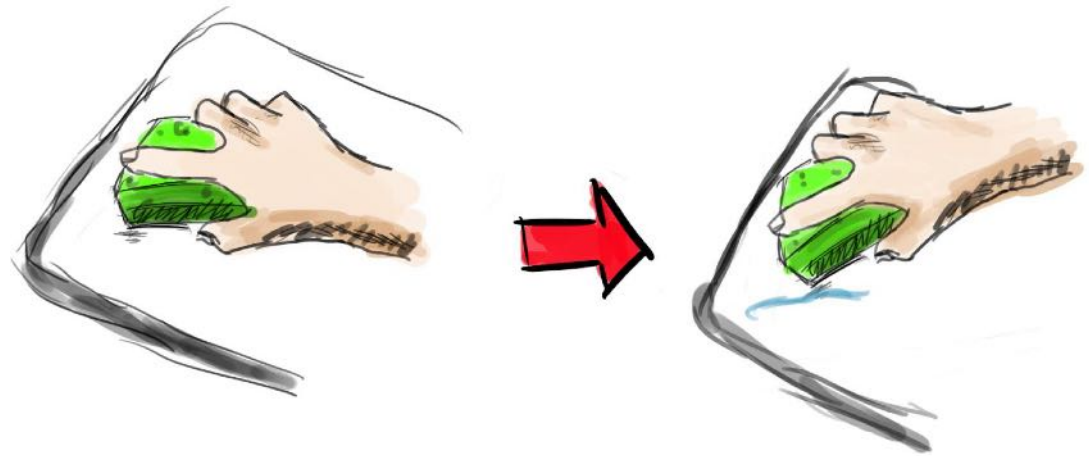
Large brush tool

- Make use of large sponge area
- Bendable -> other sizes/forms possible
- Better grip/feel of brush tool



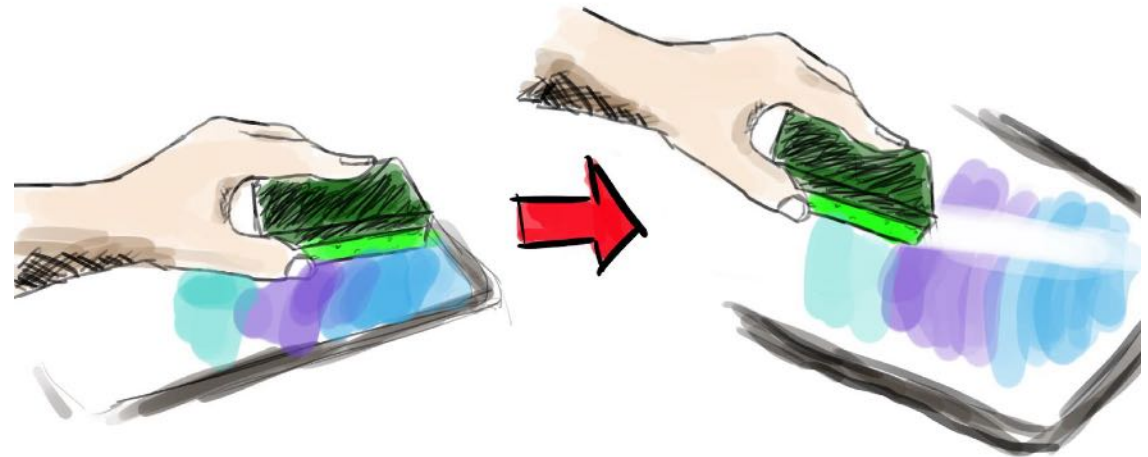
Fine line tool

- Intuitive use of sponge edges
- Use case: sketches, etc.



Eraser tool

- Usage of different colored side of the sponge
- Resemblance to real-life erasers
- Use case: erasing parts of the drawing

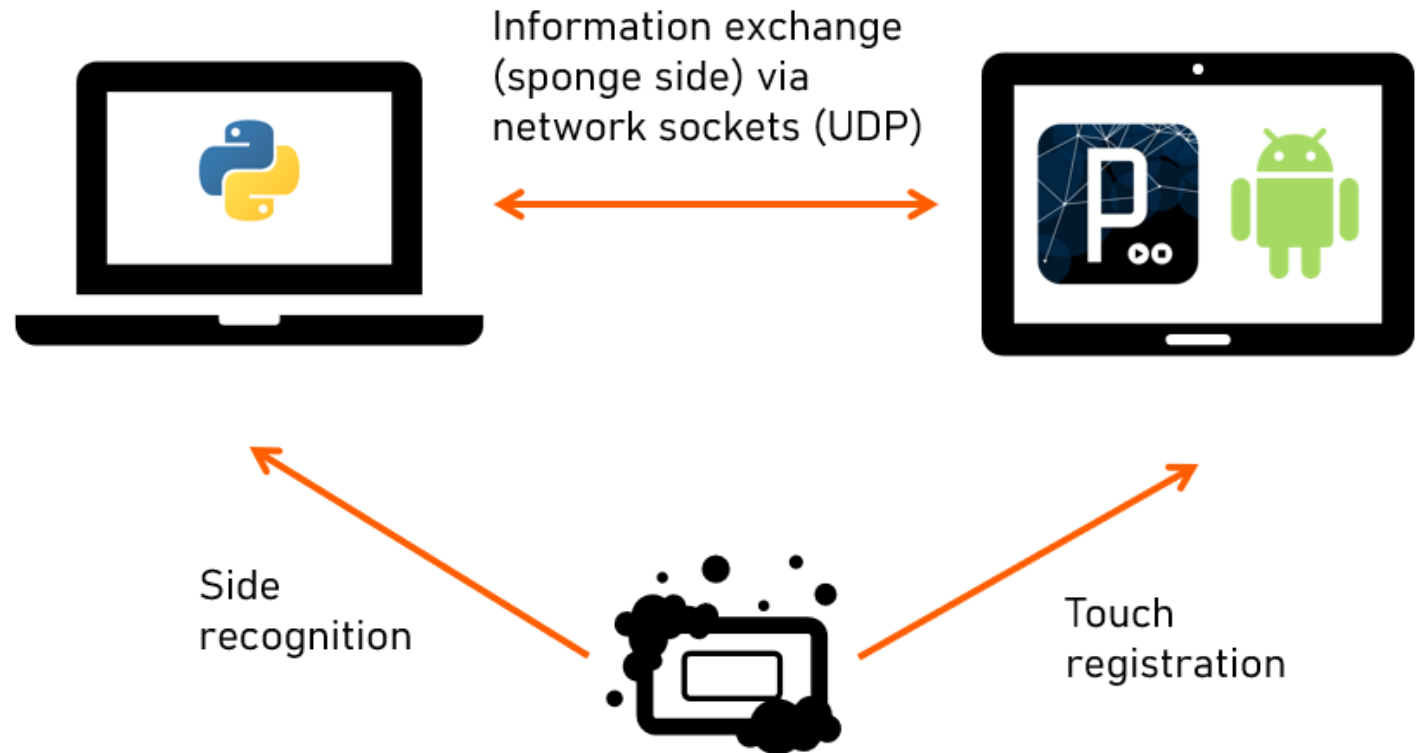


Setup

TECHNICAL IMPLEMENTATION

Components

- Drawing sponge
- Samsung Galaxy Tab S3
- Laptop with integrated webcam



Evaluation

PROTOTYPE USER TESTS

User tests

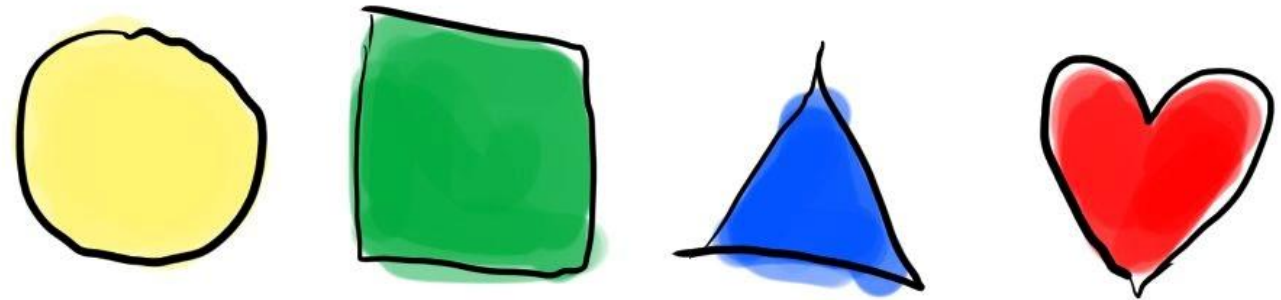
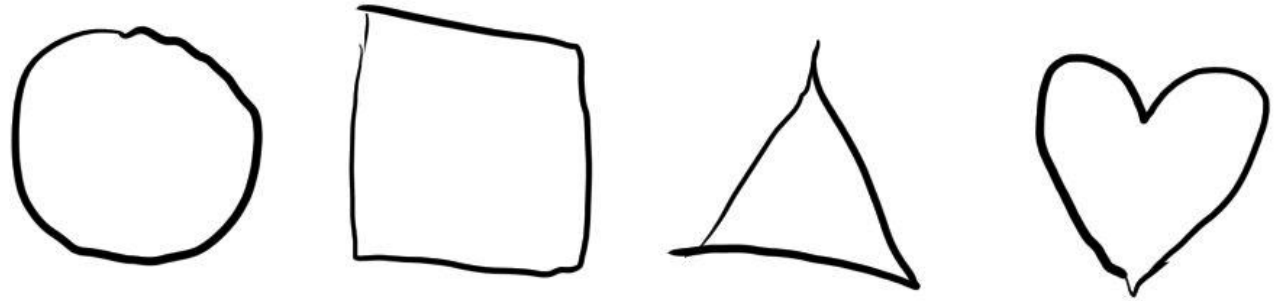
- Participants: 4 people
 - 3 male, 1 female
 - Average age: 20-30 years
 - No experience with drawing tablets
- Within-subject study



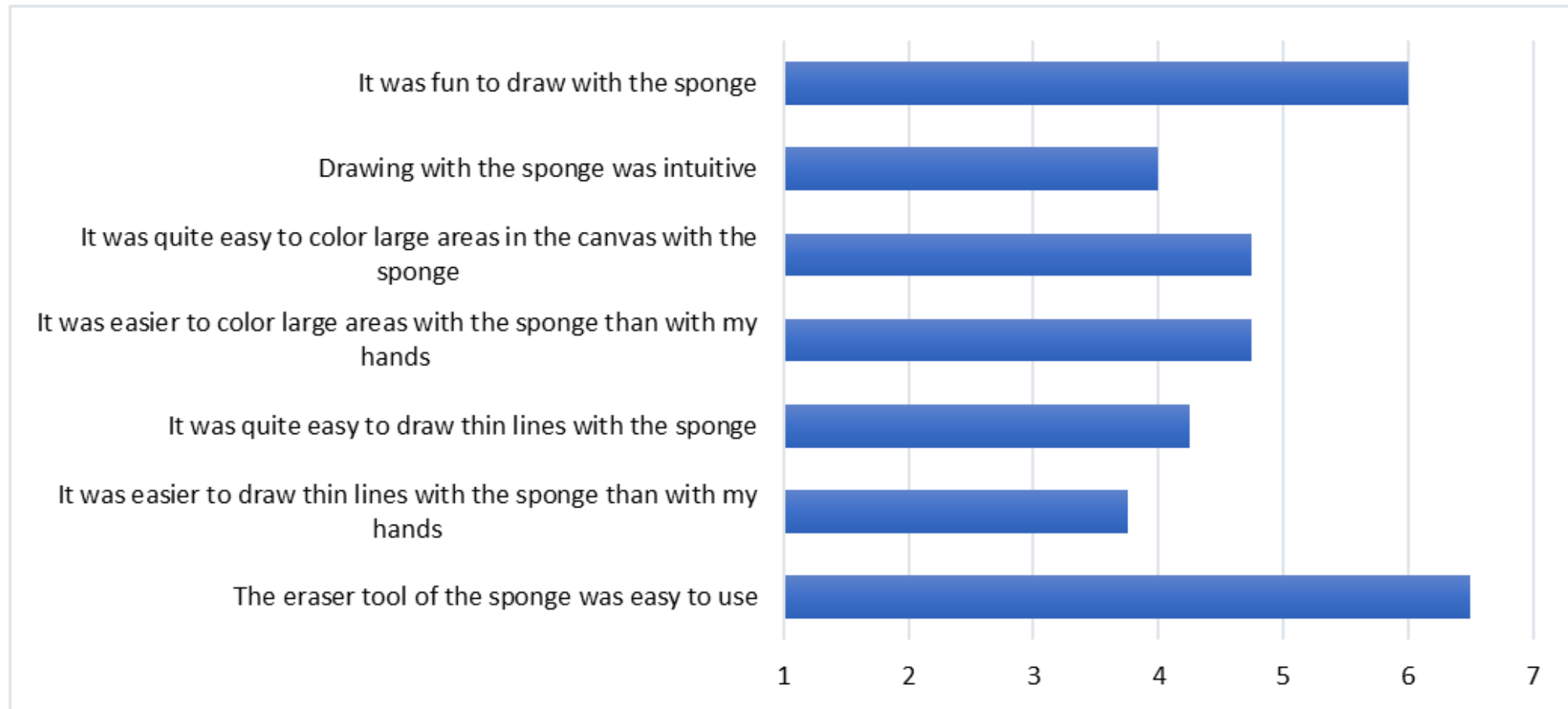
Tasks

- Drawing tasks
- Conditions:
 - Sponge
 - Hands

Task 1:



Result



Live demo

PROTOTYPE DEMONSTRATION

References

¹Rachel Blagojevic, Xiliang Chen and Ryan Tan et al. Using Tangible Drawing Tools on a Capacitive Multi-touch Display. DOI: [10.14236/ewic/HCI2012.44](https://doi.org/10.14236/ewic/HCI2012.44)