



HCI-Seminar

Air Drawing project

Group 2

Michael simmet
Javier castillio
Rudolf Uivari
Vidhu jain
Qaiser jamal

Advisor: Daniel Klinkhammer



AGENDA

- First ideas
- Project focus and Design concepts
- Domains and technologies
- Design workflow
- Work distribution
- Ideas for the future
- Lesson learned
- Live demo

ATTRACTION - FIRST IDEAS

Domain cards



- PZ9 Hallway
- Unimotion konstanz
- University bus stop
- Elevator
- Mensa open way
- Bus seats

Technology card



RFID
Leap motion
Wii remote control
Paper sensor



PROJECT FOCUS

- Getting yourself entertain while waiting.
- Draw and play music with hand/fingers movement.
- Collaborative interaction
- Control velocity of music.



DESIGN CONCEPTS

- Post-WIMP interaction (embodied interaction)
 - Recognize hand-position and hand-gestures.
 - Audio feedback
- Instructions on-demand

DOMAINS



Elevator



Bus stop



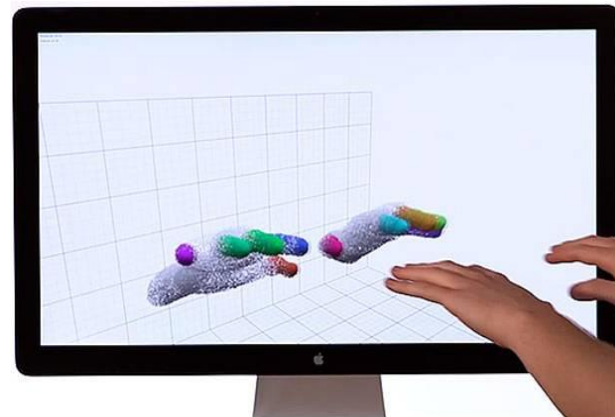
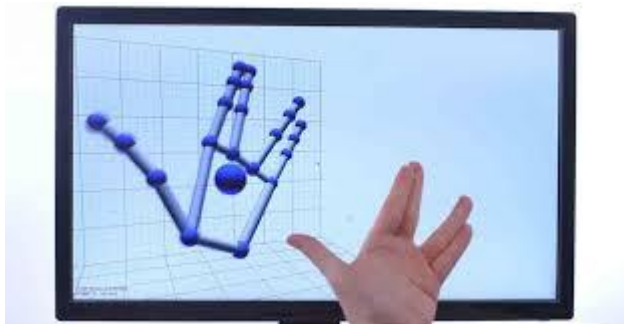
Toilet



Restaurant or bar

TECHNOLOGY

- Leap motion
- vvvv



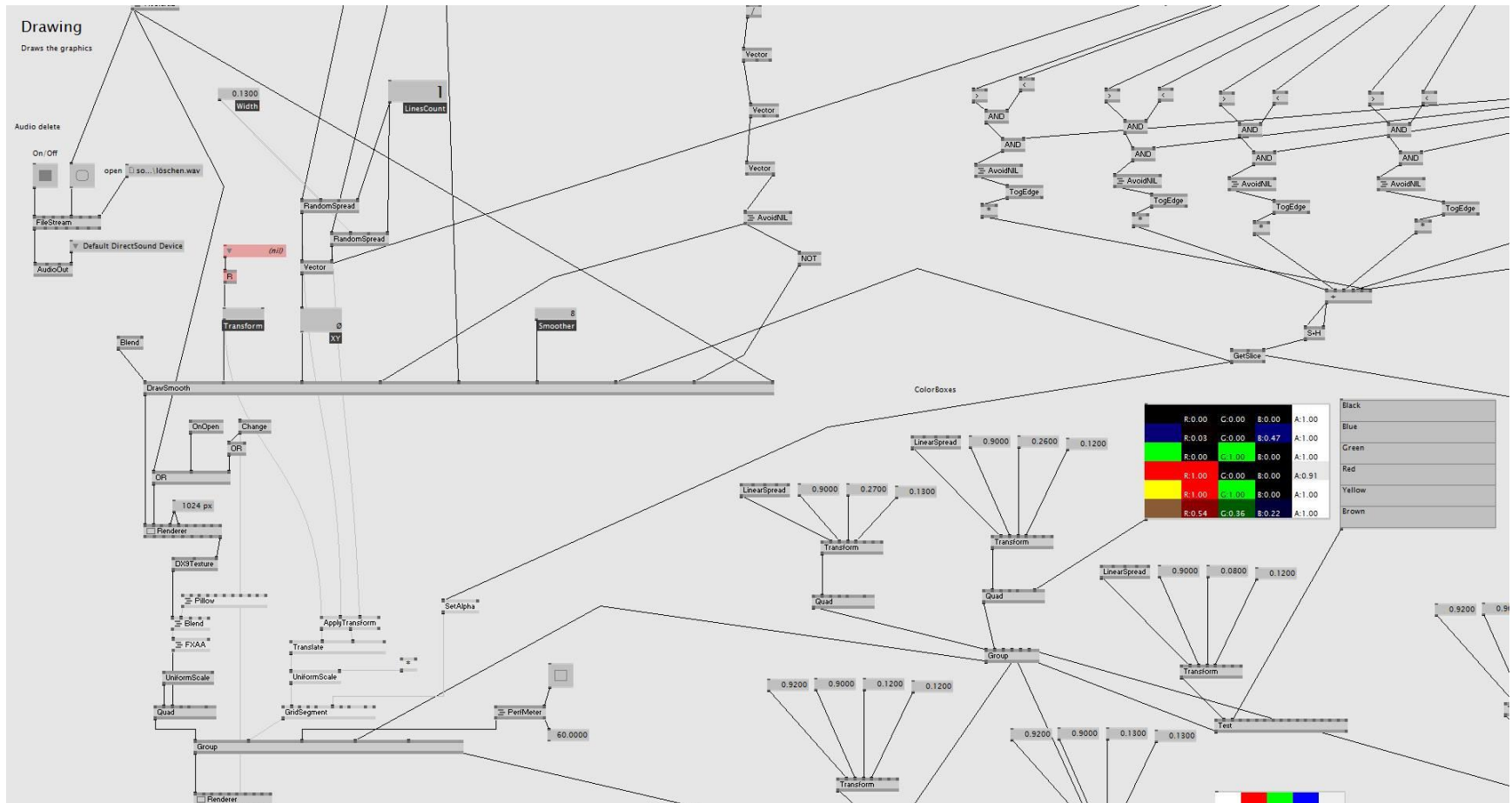
LEAP MOTION

Motion and gesture tracking

- Two monochromatic infrared cameras.
- Three infrared LEDs.



A decorative horizontal line consisting of a series of connected 'V' shapes, creating a wavy pattern.



Single patch... to big too fit on a single screen capture

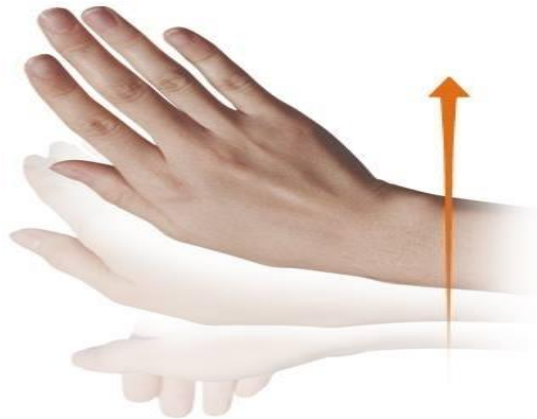


DESIGN WORKFLOW

Divided in five parts:

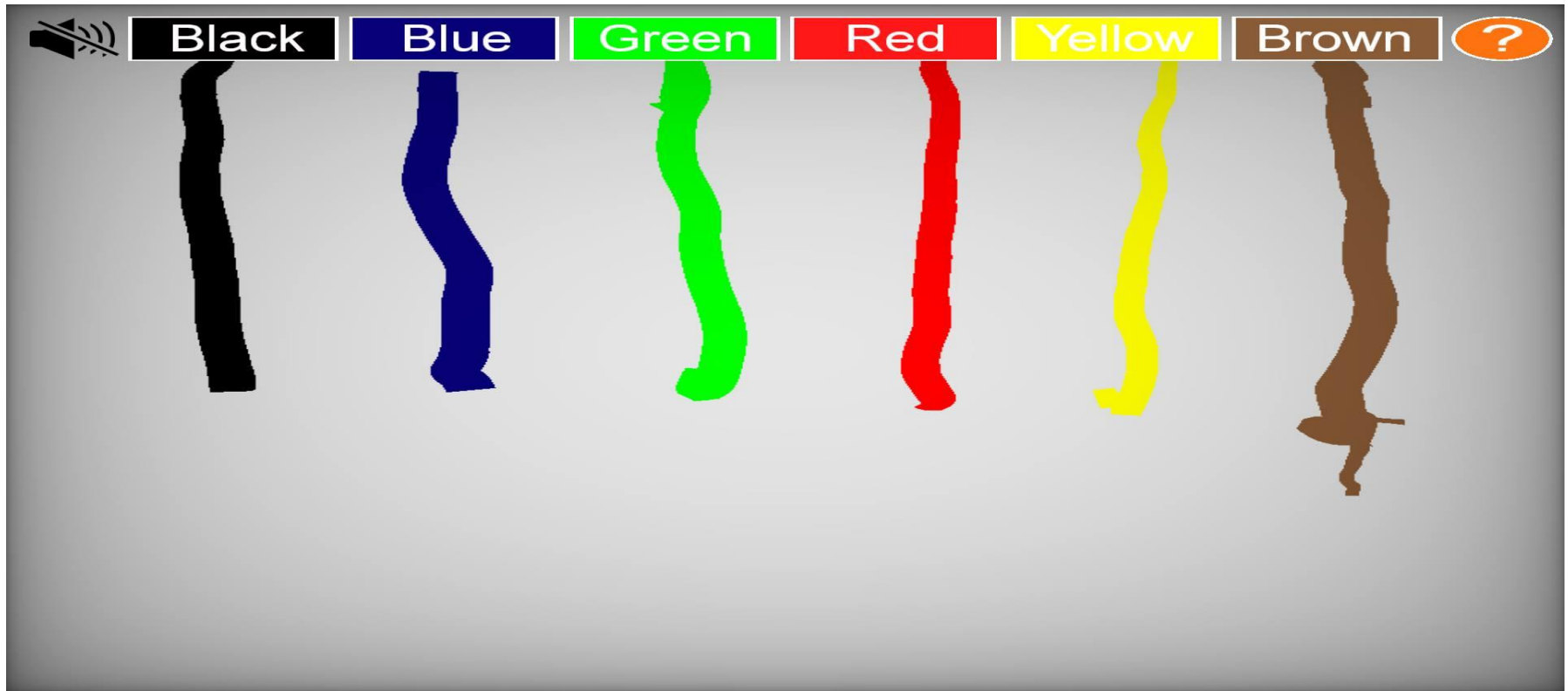
- Gesture recognition.
- Drawing with different thickness
- Drawing with different colors
- Integrating sounds with drawing
- Presentation of instructions

GESTURE RECOGNITION



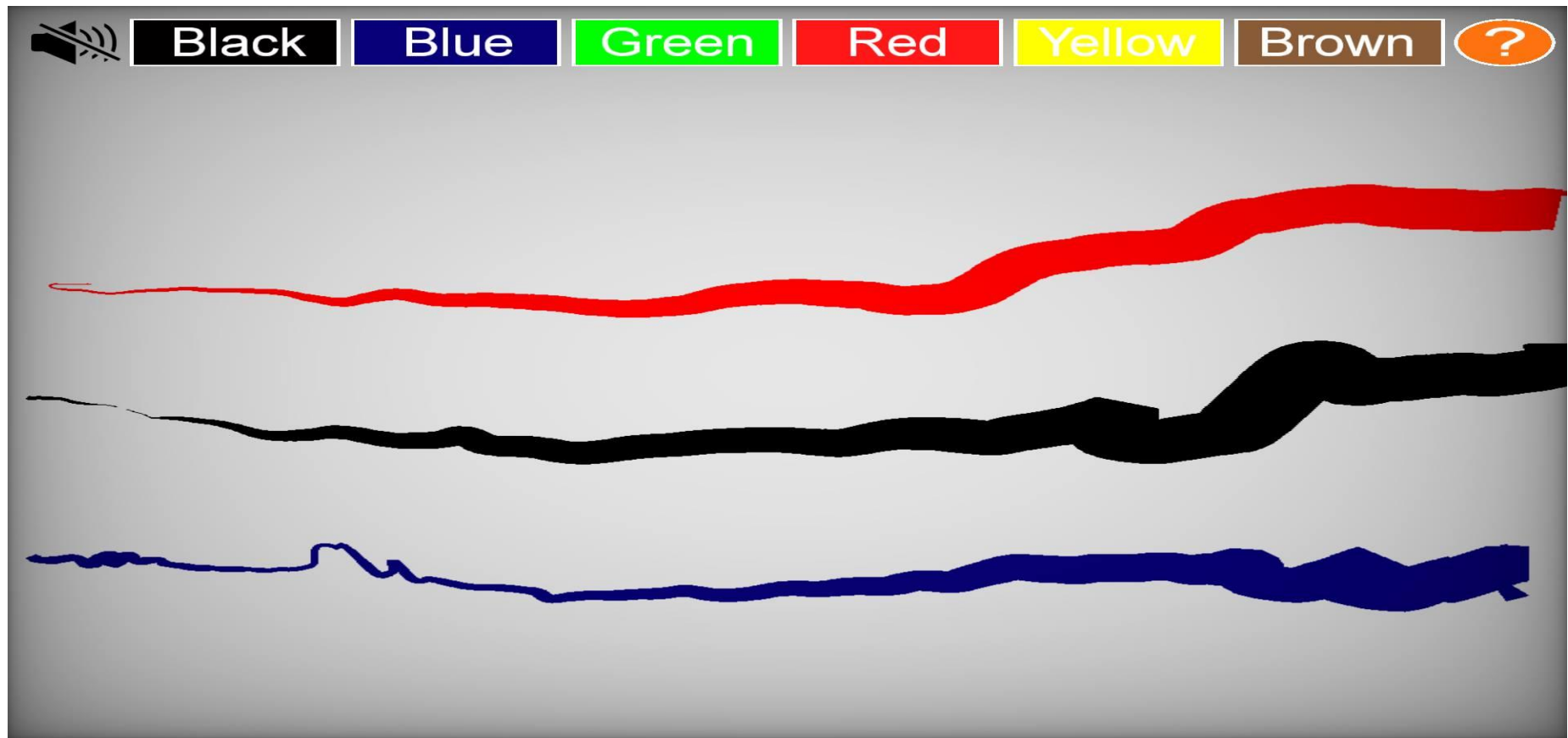
Drawing with different colors

Colors to enhance creativity.



Drawing with different thickness

Distance of hands/fingers from the leap motion define the thickness.



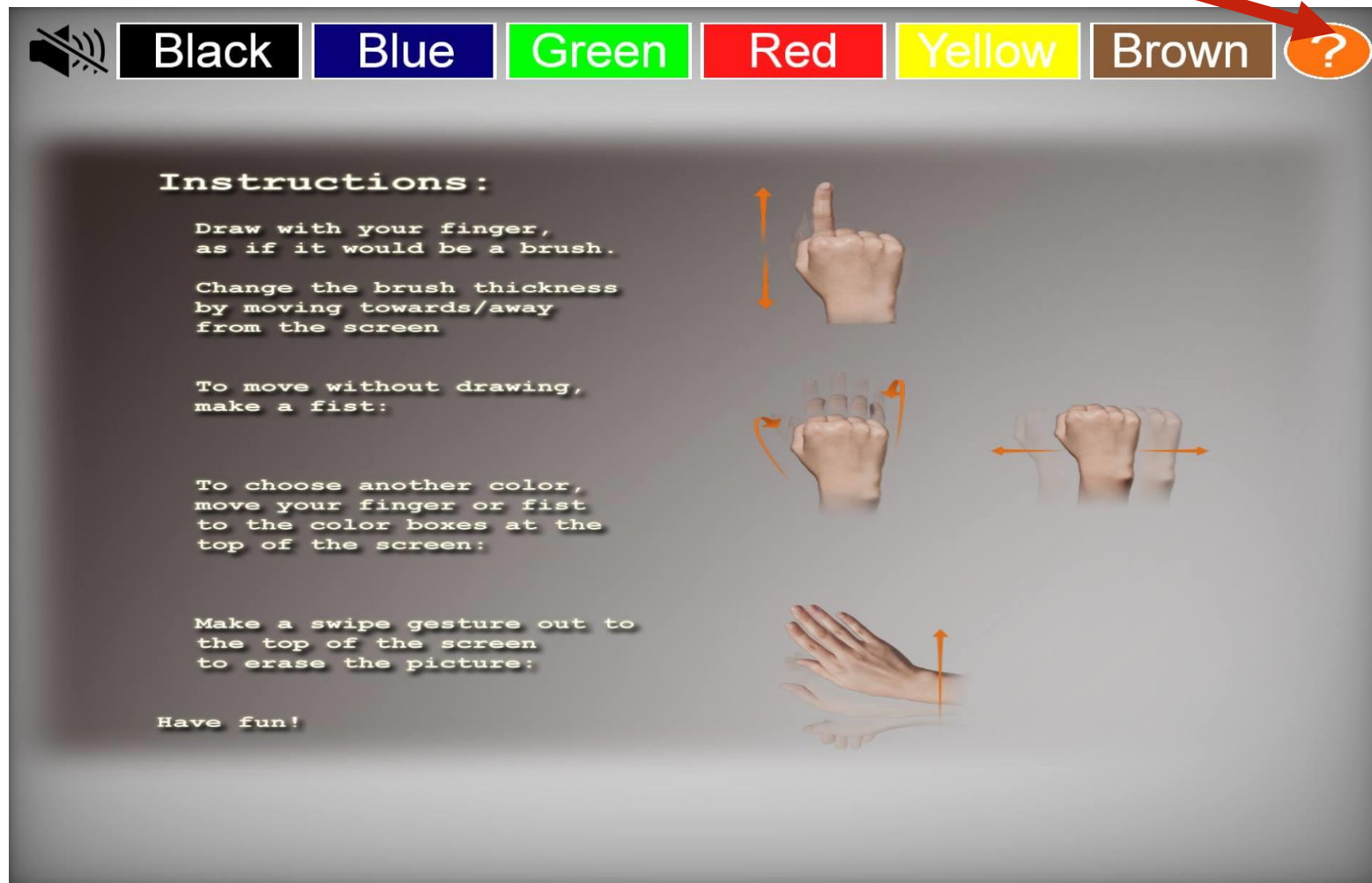
Integrating sounds with drawing

- Enable/disable background sound.

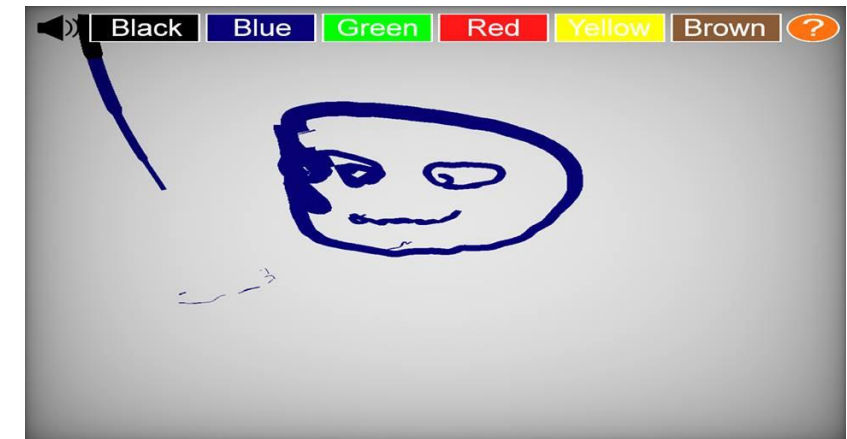
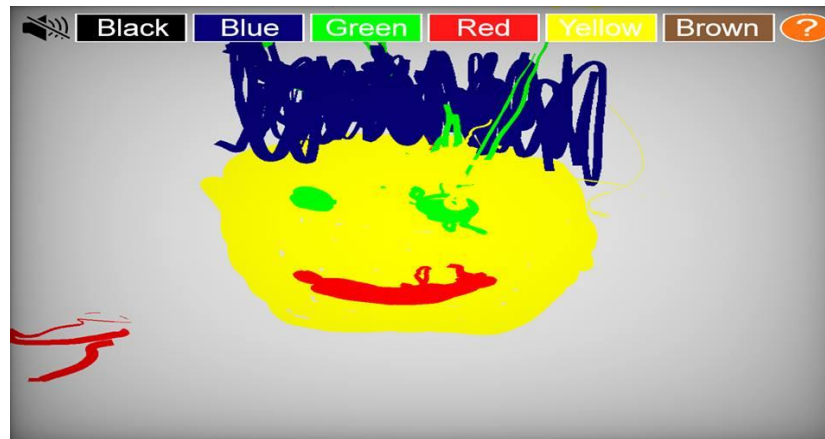
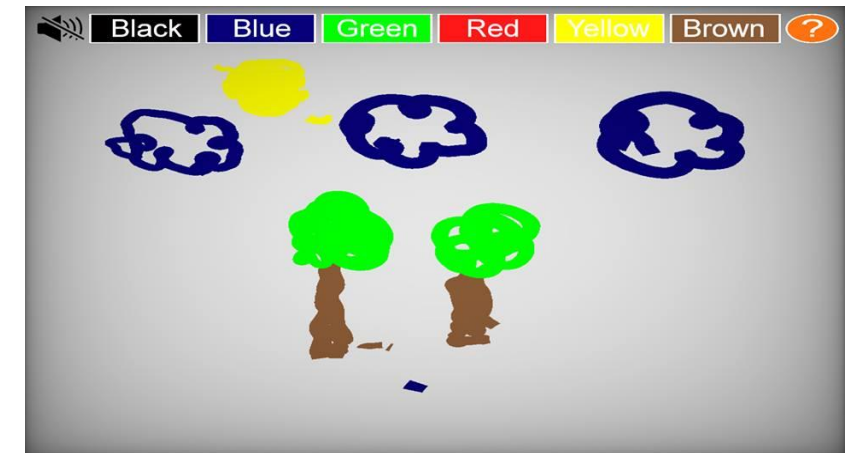
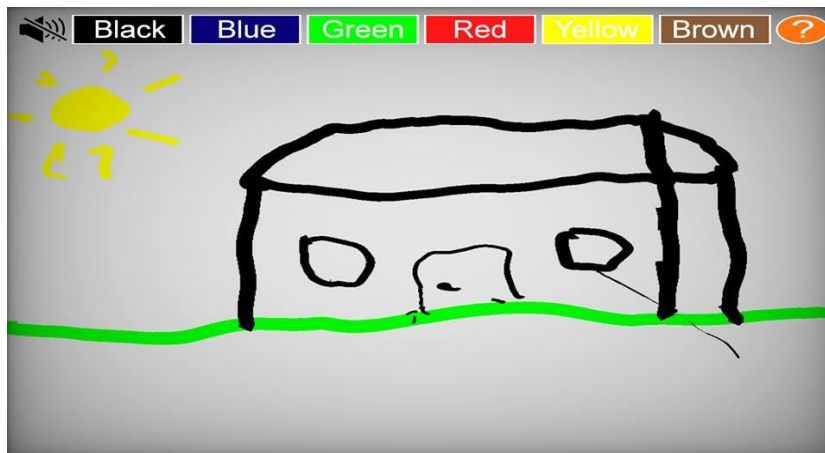
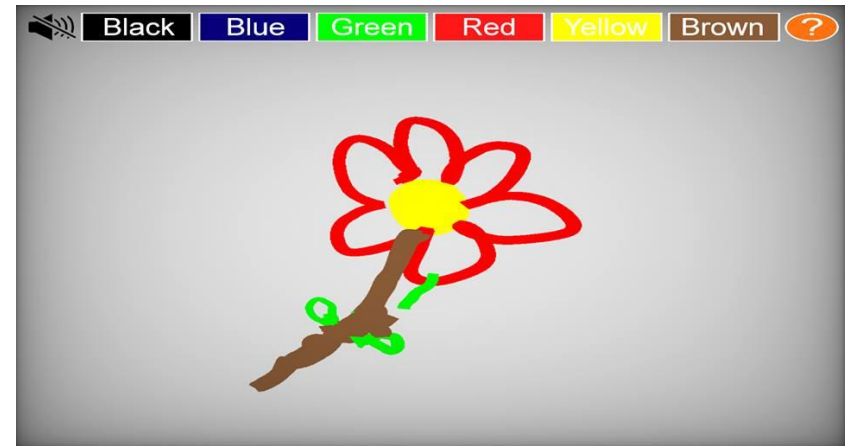


Presentation of instructions

How to use the system



ART GALLERY



WORK DISTRIBUTION

	VVVV patch	Wiki	Presentation	Project ideation
Michael Simmet	•	•	•	•
Javier Castillio	•	•	•	•
Rudolf Uivari	•	•	•	•
Vidhu Jain		•	•	•
Qaiser Jamal		•	•	•



IDEAS FOR THE FUTURE

- Erase specific sections
- Saving the art
- More colors
- Enhance collaboration with more leap motion devices
- Improve visual interface



LESSON LEARNED

- Ideation workshop
- VVVV
- Leap motion
- Gesture tracking
- Is hard to be an artist



Live Demo