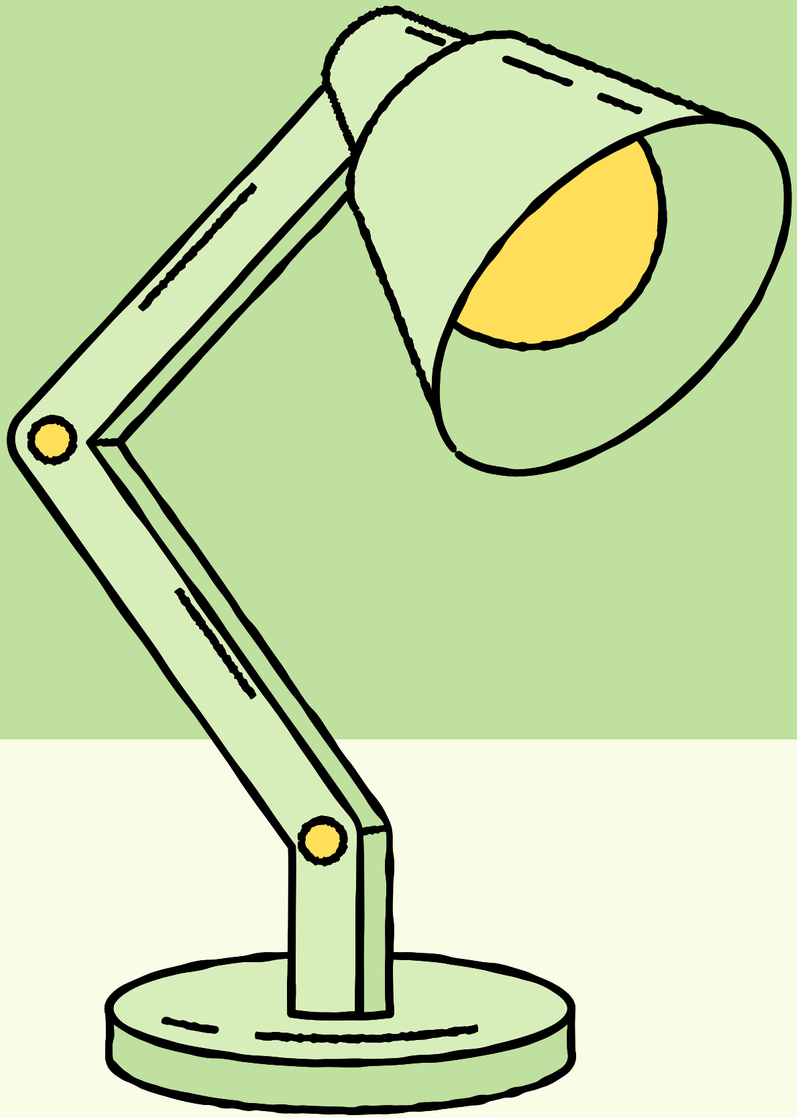


Story visualization with shadows

Group 16

Design a shadow-based storytelling experience

Learning goal:

Objects and materials can be used in more different ways than they are originally designed for, if you look at it from another perspective

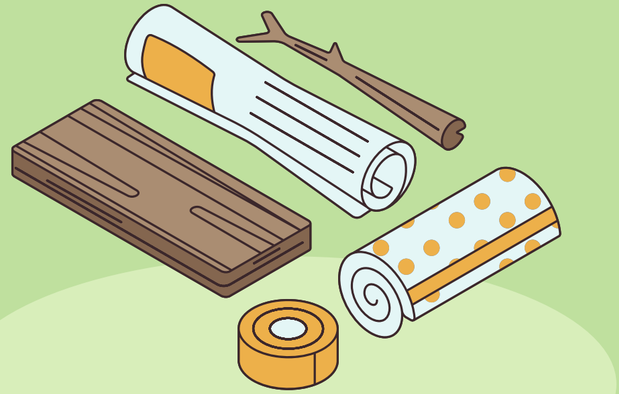
Intended outcome:

A visual representation of the story the participants started with. By using different materials and electronics to make things move that generate shadows without human intervention

Technical hurdles:

Using servo motors, buzzers, LEDs or electronics to make the visualization move.

Materials



Seed

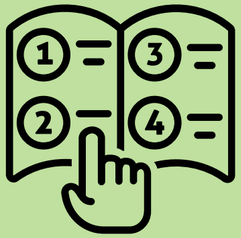
- Shadows
- Objects brought by the students
- Electronics, servo motor

Prompt

Design a shadow-based storytelling experience

Toolbox

- DesignLab tools
- Randomly found objects (DesignLab or from home)
- Objects provided by the facilitators (shapes, liquids, flashlights, etc.)



Scaffolding & facilitation

Use storybuilding game (with cards) to give participants a story to work with.

15 min

Explore how electronics work. (servo motors etc.)

15 min

Show participants all the possible materials & start working!

10 min + 2 HOURS

Demonstrate the visualization to others.

30 min

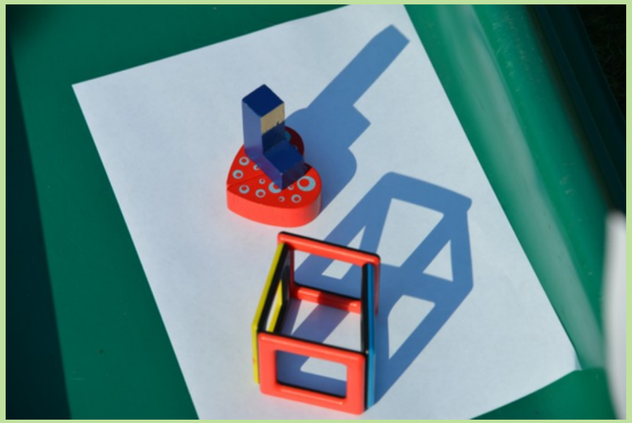
What do we need?

Workspace:

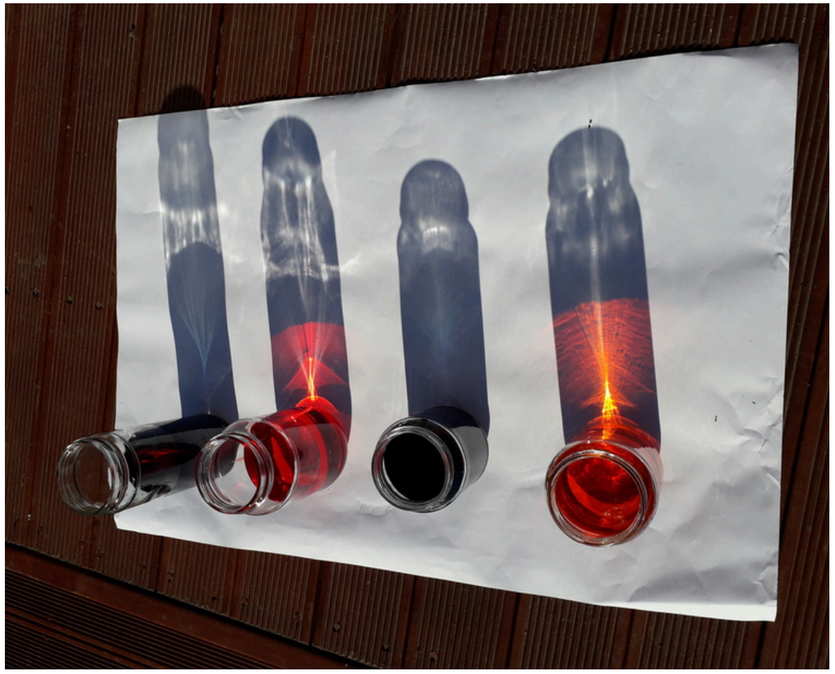
- Room that is not too light
- Room for working together
- Large wall or projector screen
- Creating space

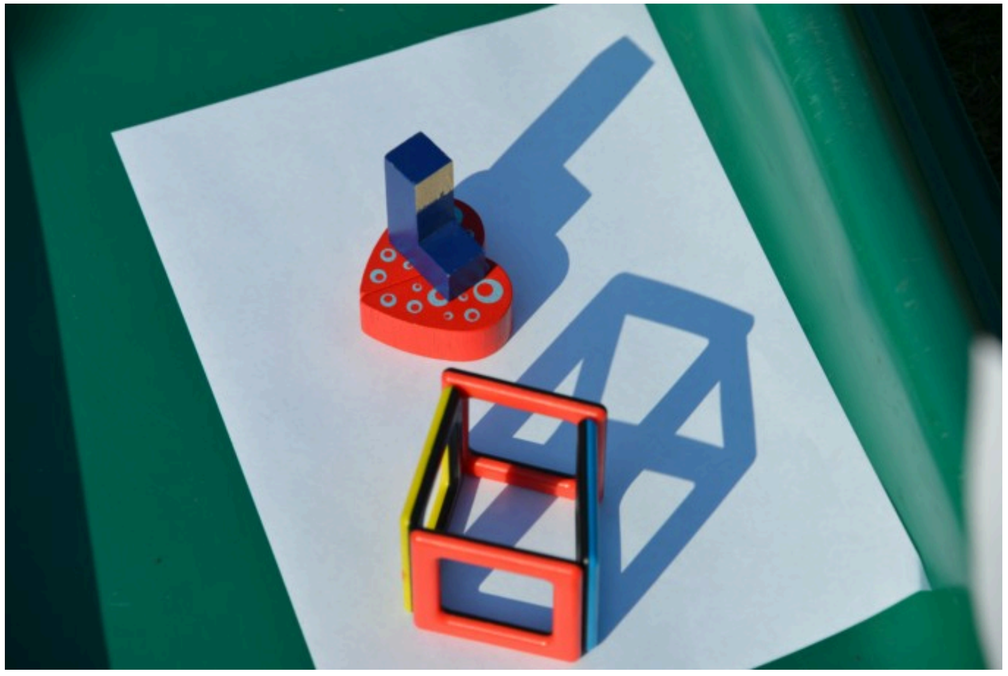
Materials

- Light sources - lamps, torches etc.
- Building materials - blocks, lego's
- Electronics - servos, LED's



Thank you for listening!





Title	Story visualisation with shadows
Scope (short description)	Students are tasked with creating a story visualisation with shadows. They have to include at least 5 different materials in addition to some hardware to make the story come alive.
Audience	Create students (first-years)
Intended outcome	A visual representation of the story the participants started with. This is done by using different materials and electronics to make things move that generate shadows. The storytelling should work autonously: the storytelling won't include human intervention.
Possible learning goals (insights)	Understanding that materials can be used in a lot more different ways than is obvious at first glance. Usage of different hardware components.
Materials	Paper, waste cardboard, material from home, liquids, blocks, trash, leftover pieces
	Stickers, tape
Tools	Pens, pencils, ruler, markers
	Scissors, knifes, glue
Group 16	Movind servos, leds, raspberry pico, motors, microphones

Planning	10 minutes introduction & brief lecture
	30 minutes tinkering, brainstorming and gathering of materials
	120 minutes building
	30 watching creations
	10 minutes clean up
Instruction	Fase 1: Find your group and start tinkering. Generate a concept and gather all needed mateials Fase 2: Create your story. Build structures, see what materials make what kind of shadows, and how things can move. Use all this to create your stories. Fase 3: Show your creations

Template from:
https://wiki.edwindertien.nl/doku.php?id=education:masteringtinkering:template