

Programmiertes Entwerfen 1

Briefing: One Button Murmelbahn

Briefing

Your challenge is to create an interactive "Murmelbahn" (marble run) in the browser.

The run of the marble can be controlled by a very constrained and limited user interface: a single button. This single button allows the player / user / viewer to manipulate / twist / divert / alter ... the time the marble spends in the run. Try to find a good balance between "fun and surprise" vs. "this is boring".

In addition every Murmelbahn has to have an interface to the previous and next Murmelbahn of the other teams. In the end we will chain everything together to a single long Murmelbahn comprised of all sections.

The students are asked to work in teams.

Technical Hints

- A button has two states: pressed and released. How can you design a core game machine solely using the changes between the states? These actions could control movement (jumping, flying), an action (transforming), or a change in the environment (gravity, weather, friction).
- Your team will have to negotiate with the previous and next Murmelbahn teams to define the positions and dimensions of the start and end zones (think portals) to transfer the marble to your section.
- The run of the marble is simulated by using [matter.js](#) a 2D physics engine for the web. The [p5.js with matter.js examples](#) show how to combine matter.js and p5.js.

Deliverables

Murmelbahn which:

- runs in the browser and is fun to use
- can be chained together with other teams
- is implemented with matter.js and p5.js
- has a standard resolution so that it can be played in a variety of desktop computers (we will have to negotiate a resolution for the entire class once implementation starts)

References and Inspirations

- The briefing was inspired and is partly based on "One Button Game" from the upcoming book [Code as Creative Medium](#) by Golan Levin and Tega Brain
- [Which Door Will The Ball Hit?](#) - Joseph's Puzzle Machines, by [Joseph's Machines](#)
- [Der Lauf der Dinge](#) (1987, engl. The Way Things Go) by [Peter Fischli & David Weiss](#)
- [How to Pass the Salt While Maintaining Proper Social Distance](#) by [Joseph's Machines](#)
- [Simone Giertz](#) "an expert in shitty robots"