

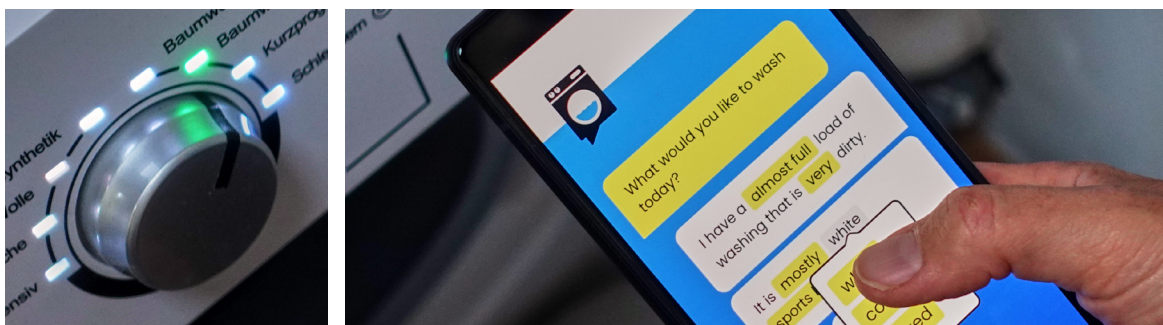
prototyping with hardware and the web

A hands-on, one-day introduction to connecting physical objects with web UIs.

Once upon a time, connecting prototypes to web apps and UIs was slow, complex and buggy.

Not any more. Discover how to supercharge your prototyping capabilities with the latest Web APIs. You'll learn to drive digital interactions on the screen by sensing and controlling hardware interfaces, connecting to prototyping tools like Figma and browser-based Javascript UIs .

Run by interaction technologist George Cave, this highly interactive workshop is built around playful experiments, in-depth technical exploration and design case studies. Specifically designed for product design & development teams, gain the skills to confidently build quick, fully-interactive hardware prototypes that accelerate your design process.



Typical agenda

1. Hardware basics

Connecting to Arduinos • Everything is a keyboard • De-mystifying button presses • Keypress tricks • Using hardware with Figma / Xd

2. Using Serial on the web

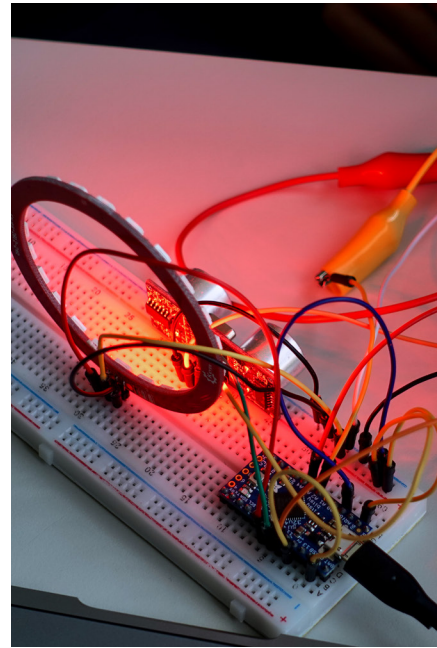
Using the WebSerial API • Sensing and messaging • Bytes • Efficient hardware prototyping • Catching errors

3. Going wireless

Understanding Bluetooth • WebBluetooth API • Simple communication over BLE • What is the nRF52840? • UART characteristics • Running on battery power

4. Future-proof prototyping

Prototyping with Android devices • Simulating web apps • MQTT • LoRA • Client-proof prototyping • Robust design



This workshop is only available in-person, suitable for a maximum of 10 attendees.

All participants will leave with a custom wireless prototyping kit, specifically assembled for this course using the powerful Feather nRF52840 Sense platform.

Who should attend?

This workshop is ideal for developers, creative technologists, engineers and design teams looking to enhance their front-end prototyping skills to control physical objects, or connect their hardware abilities to the web.

The course can also be tailored to digital development teams who are new to hardware, or engineering teams who are familiar with the Arduino environment but are new to front-end JS development. Participants should have some previous experience in programming (e.g. Intro to Arduino or front-end programming). No prior knowledge of electronics is required.

About George

George Cave is an interaction technologist and design engineer. As the founder of *Interaction Magic*, he collaborates with agencies and in-house design teams to invent and prototype the future of product interaction.

George is a visiting lecturer at the Copenhagen Institute of Interaction Design, TU Delft and FH Salzburg, and previous conference speaker at IXDA Interaction Week, TEDx, FITC and Ars Electronica.



To book this workshop for your team, contact workshops@interactionmagic.com