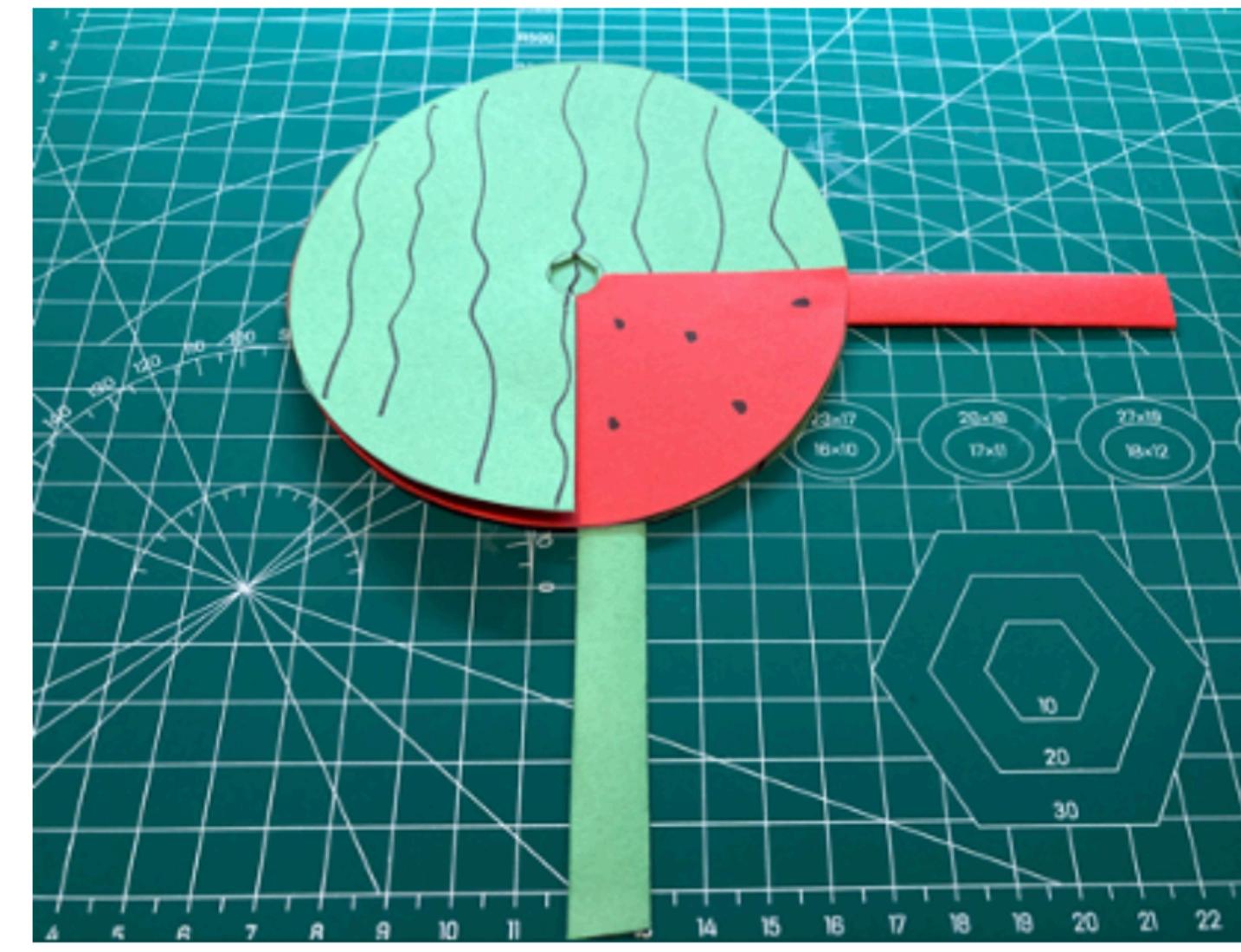
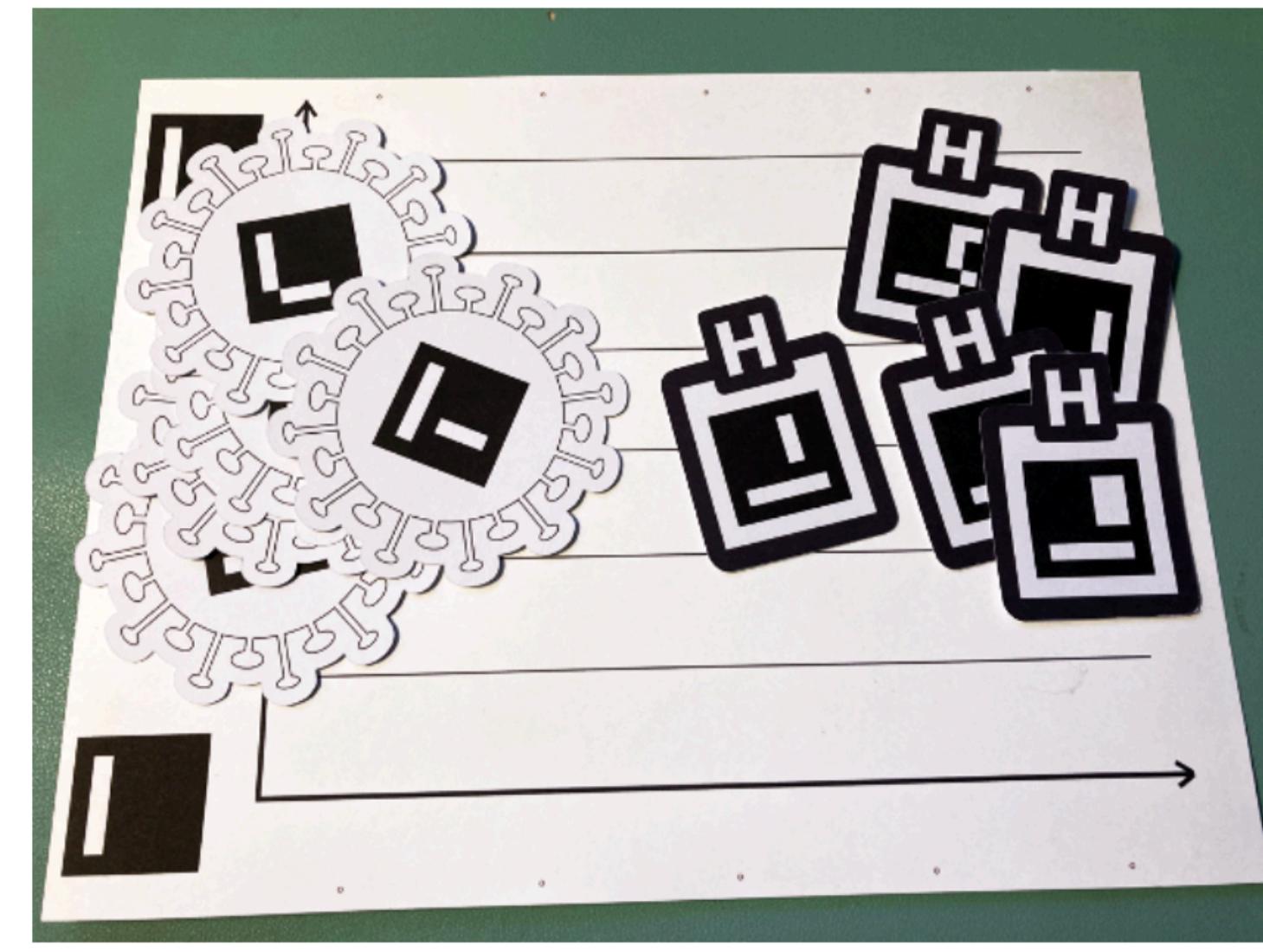
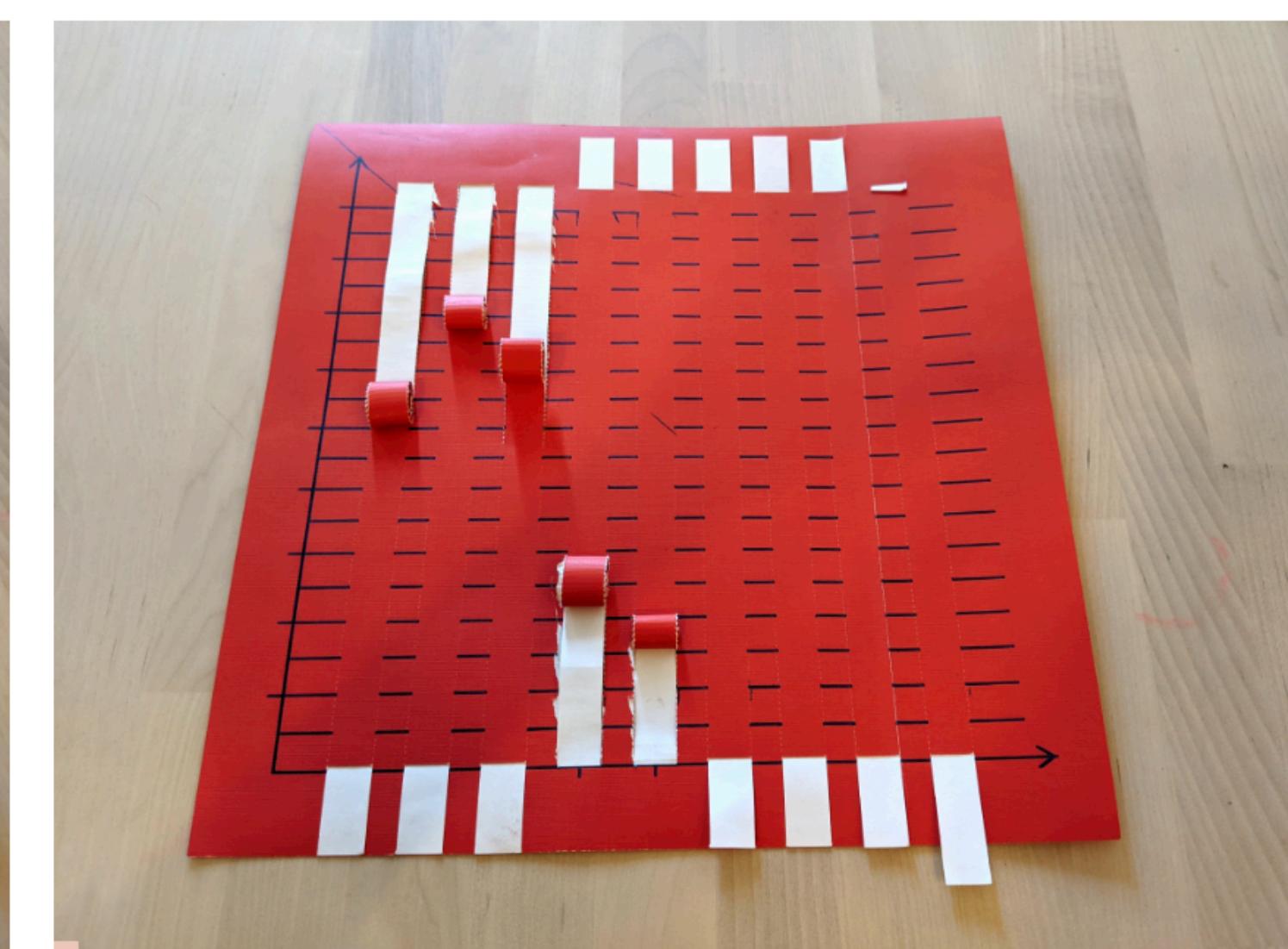
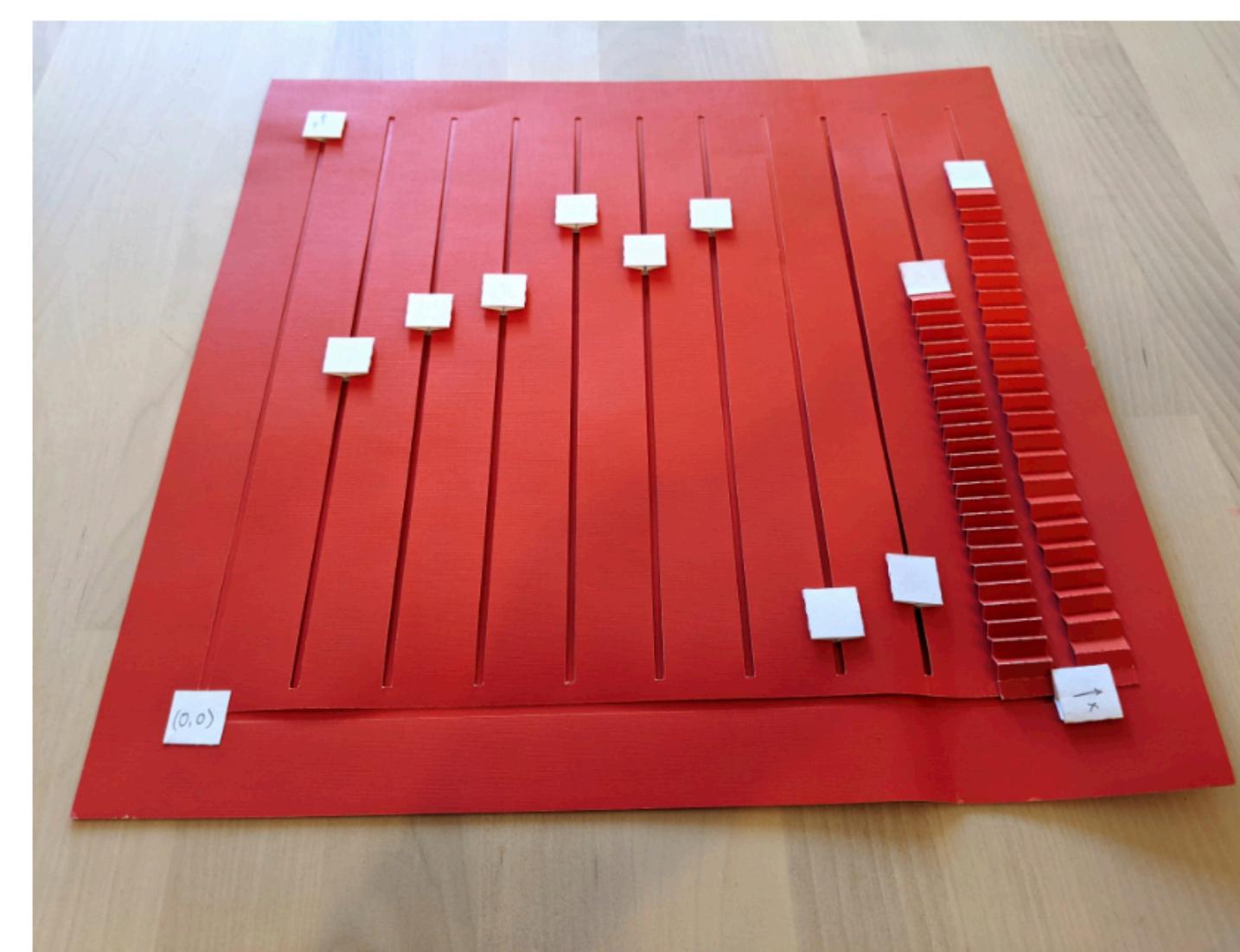
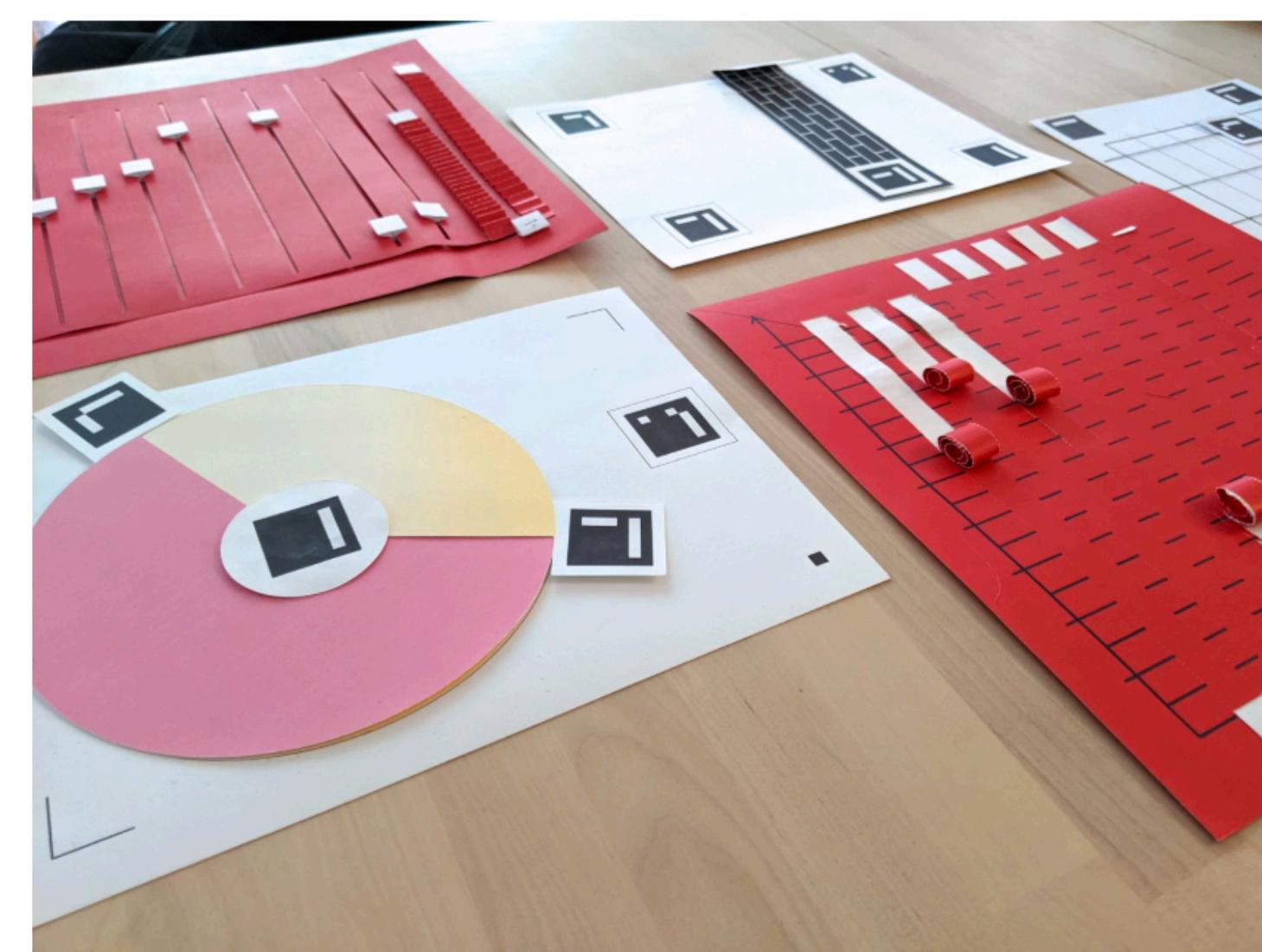


Chapter 4, Episode 3: Towards data *experiences*: hardware, physicalization, and embodied data

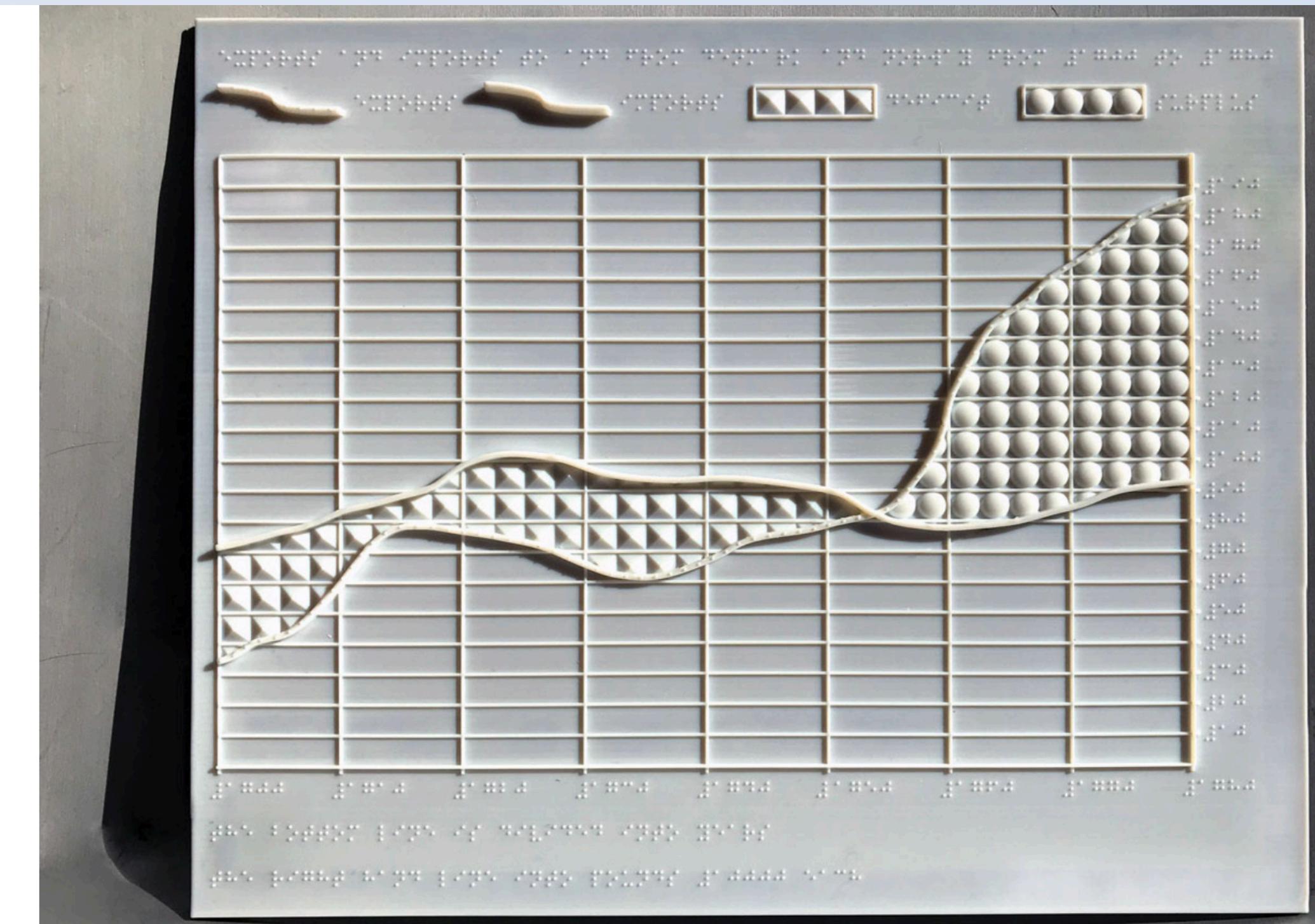
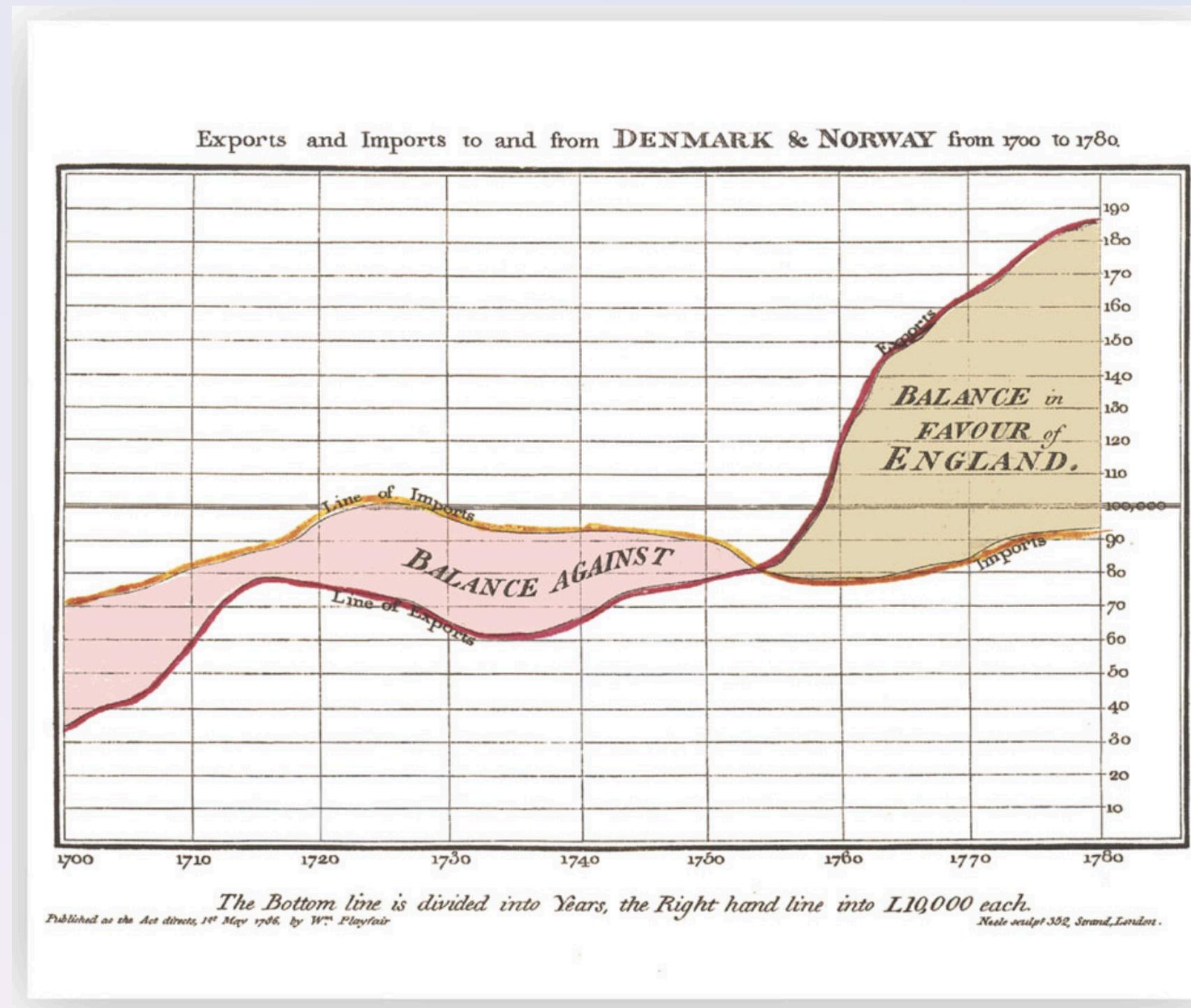
Embossed paper
Still one of the best
technologies out there!





Credit: “[Touching Information with DIY Paper Charts & AR Markers](#)” by Bae et al

3D Printing

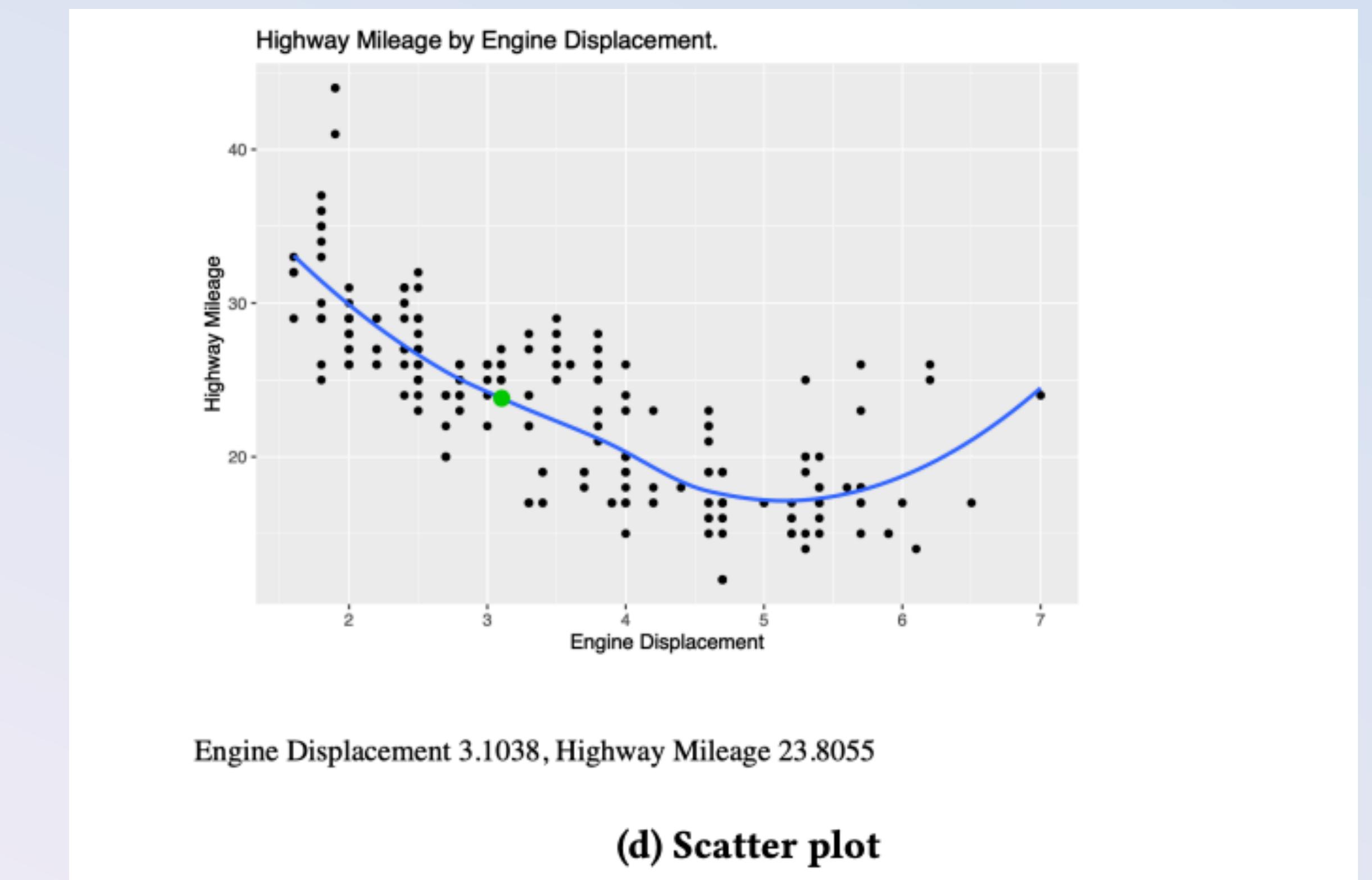


[“Sociotechnical considerations for accessible visualization design” by Lundgard et al](#)

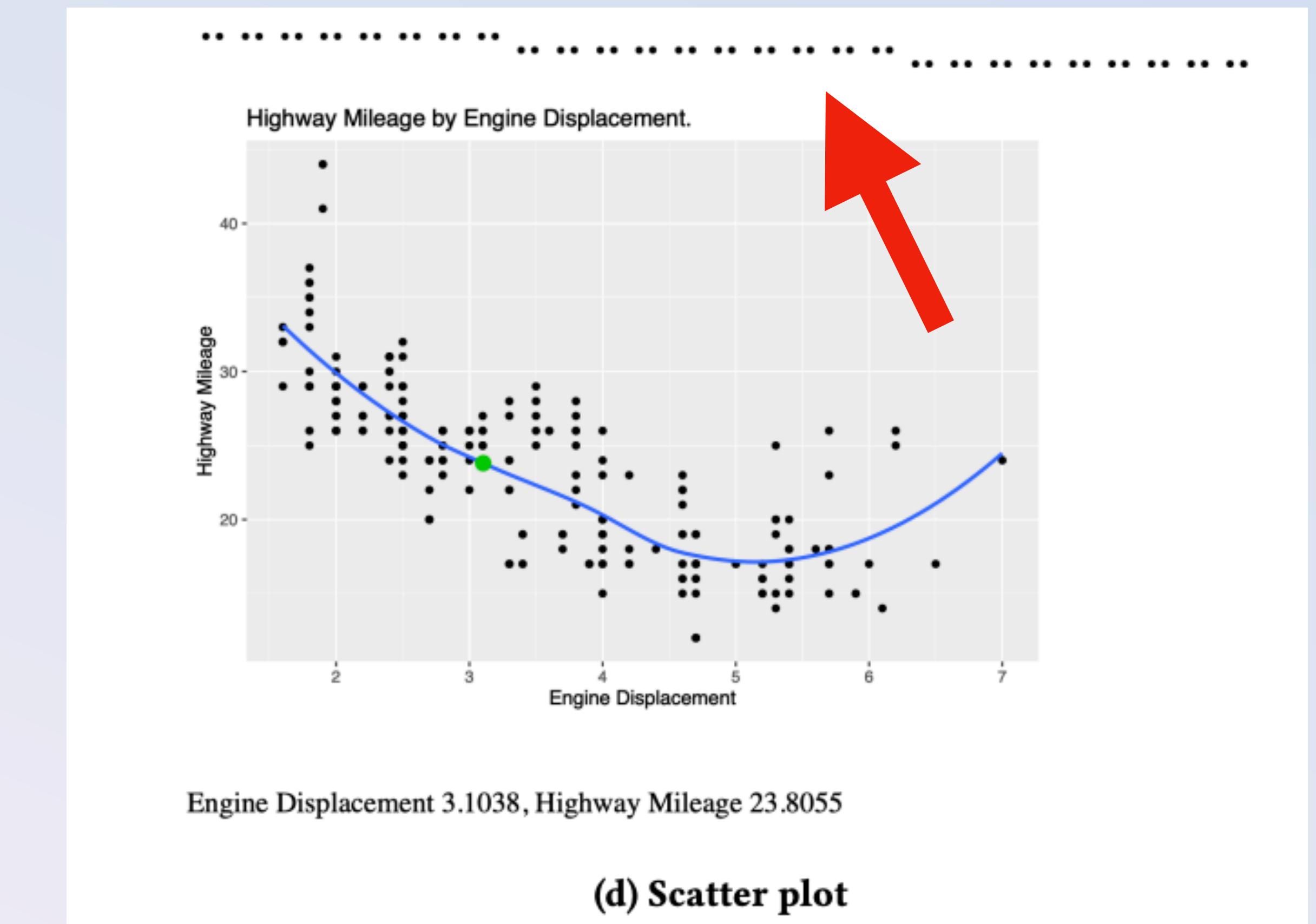
Refreshable tactile displays



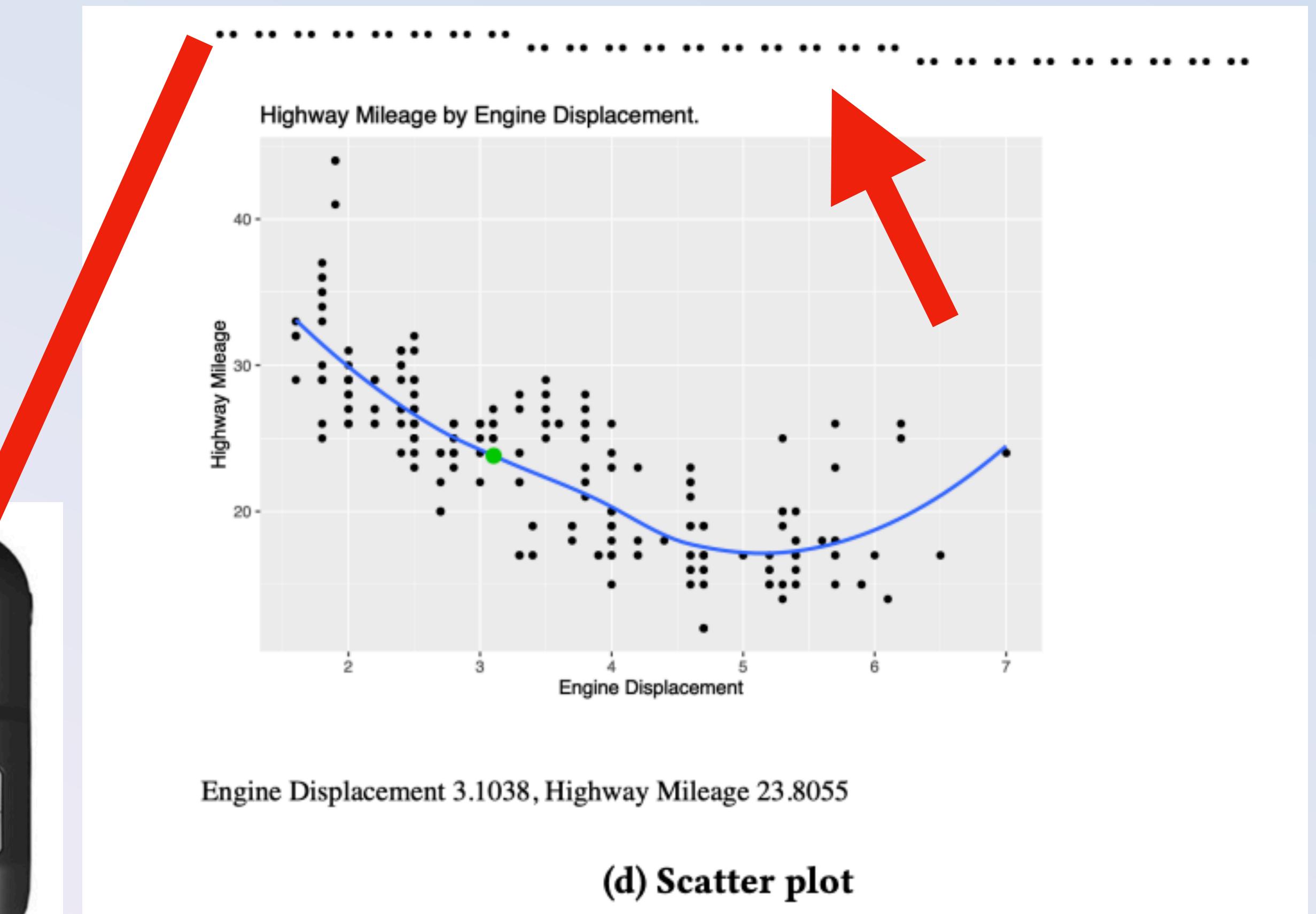
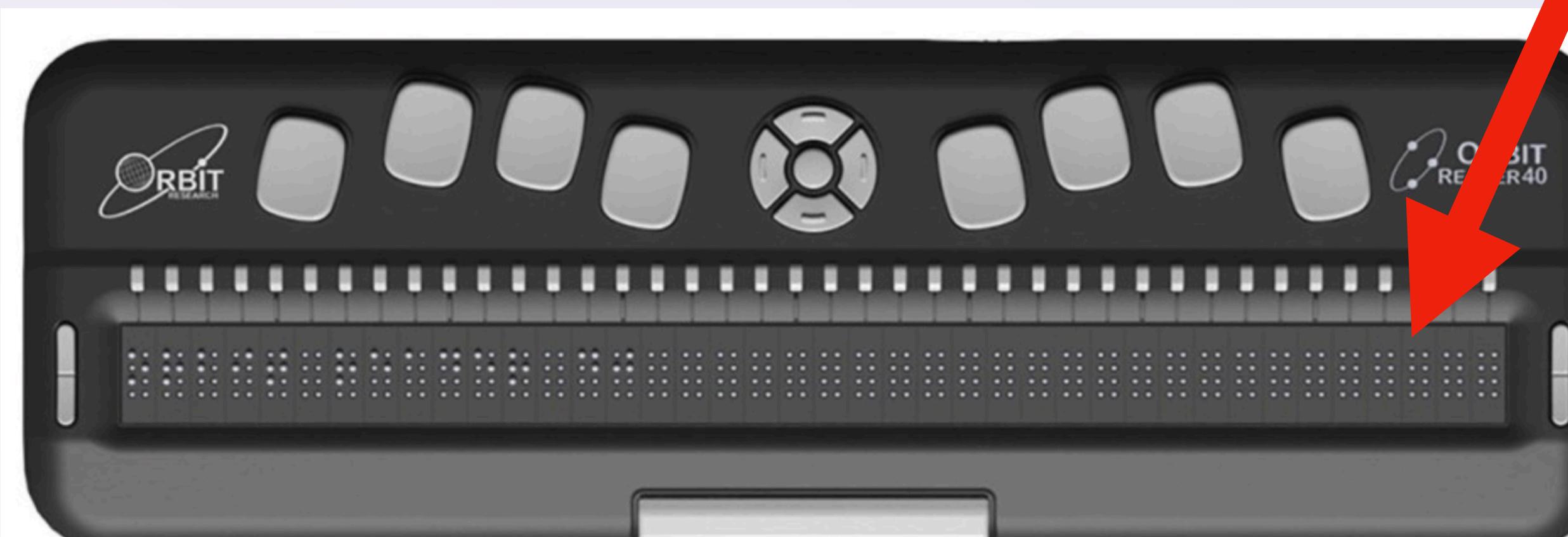
Methods for using existing tactile displays



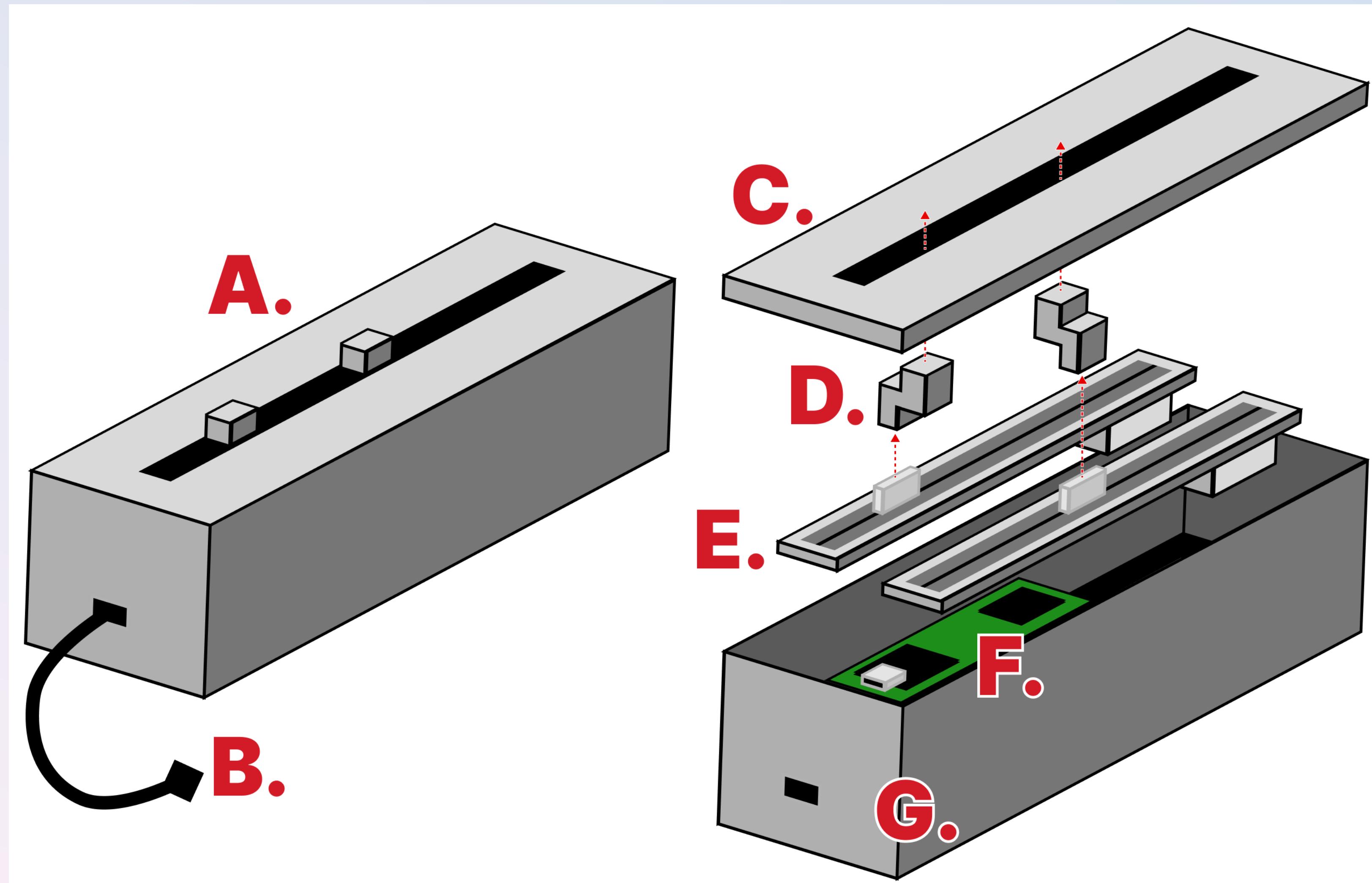
Methods for using existing tactile displays



Methods for using existing tactile displays

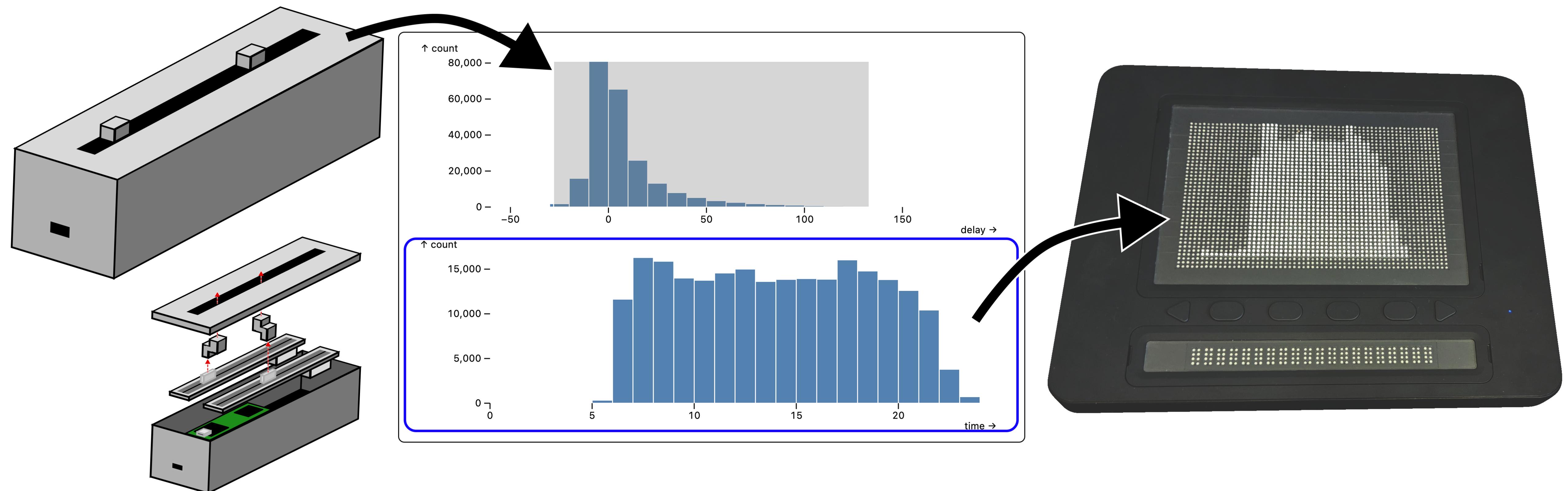


Prototype: cross-feeler



Credit: "Cross-perception" by Elavsky et al

Cross-perception: A tactile, dual-task paradigm.



Credit: “Cross-perception” by Elavsky et al

Who is data for?

Public data and accessibility

Credit: “American Monument” by Data Vandals





Credit: "Life under curfew"



Credit: [“Conscious Waste: Visualizing waste in Panama City” by easydataviz](#)

Play, community, and data

“We create playful experiences with data  to spark meaningful conversations” - Jose Duarte



Credit: [“Let’s play with data kit” by easydataviz](#)