

2018-09-21

Exploring Prototyping Tools for Interactive Fashion Design

Ta, Kevin

Ta, K. (2018). Exploring Prototyping Tools for Interactive Fashion Design (Master's thesis, University of Calgary, Calgary, Canada). Retrieved from <https://prism.ucalgary.ca>. doi:10.11575/PRISM/33071
<http://hdl.handle.net/1880/108718>

Downloaded from PRISM Repository, University of Calgary

Bod-IDE An Augmented Reality Sandbox for eFashion Garments

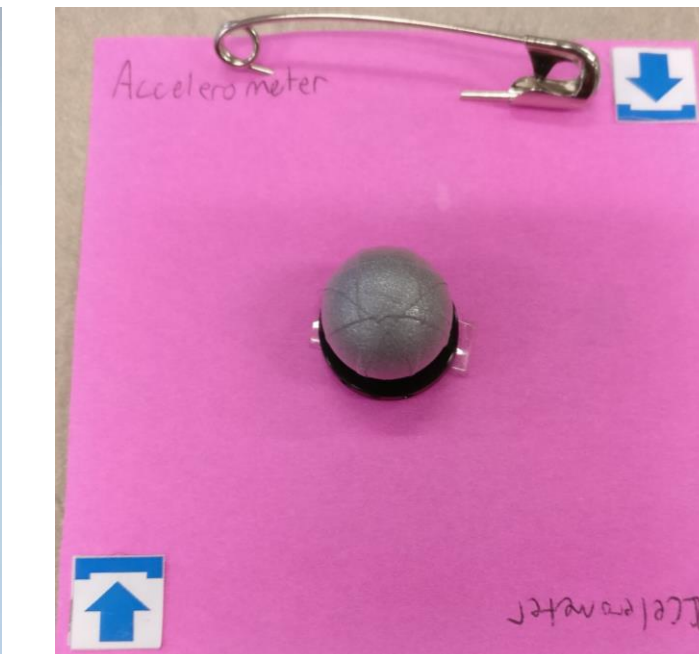
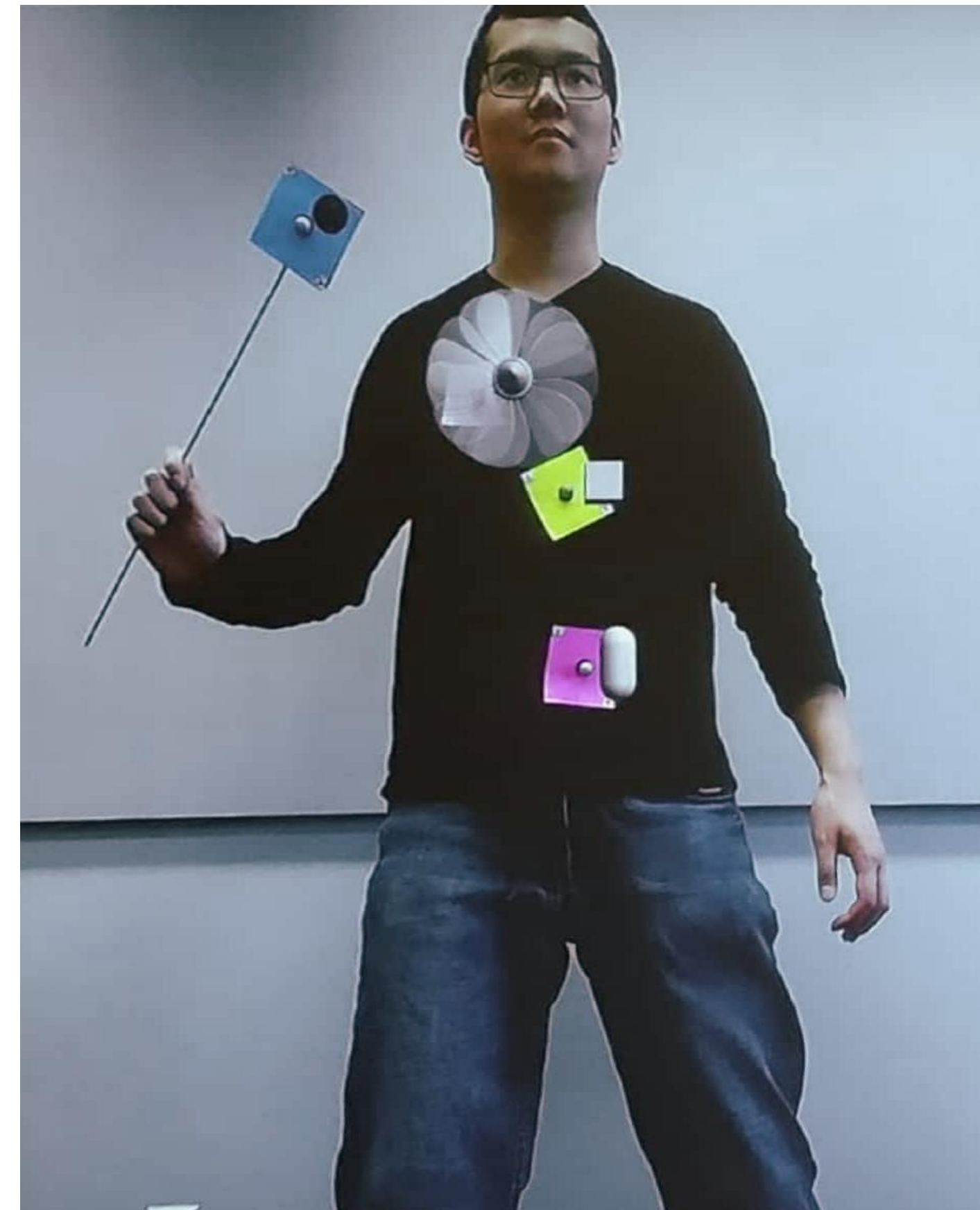
Kevin Ta
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Prototype interactive behaviors on the body

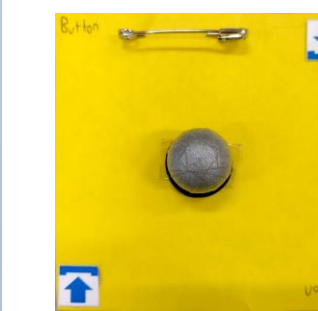


Wear interactive virtual components



Trackable augmented reality tags feature a safety pin to attach to existing garments

The retroreflective marker (center) enable it to be tracked by an IR camera and turn the tag into an *interactive component*



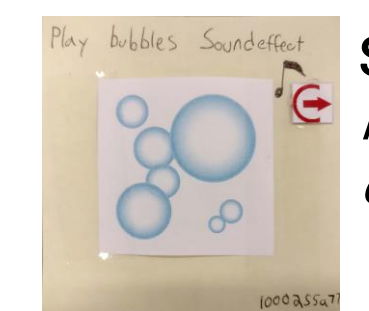
Button wearable input



LED wearable output



New Tweet non-wearable input



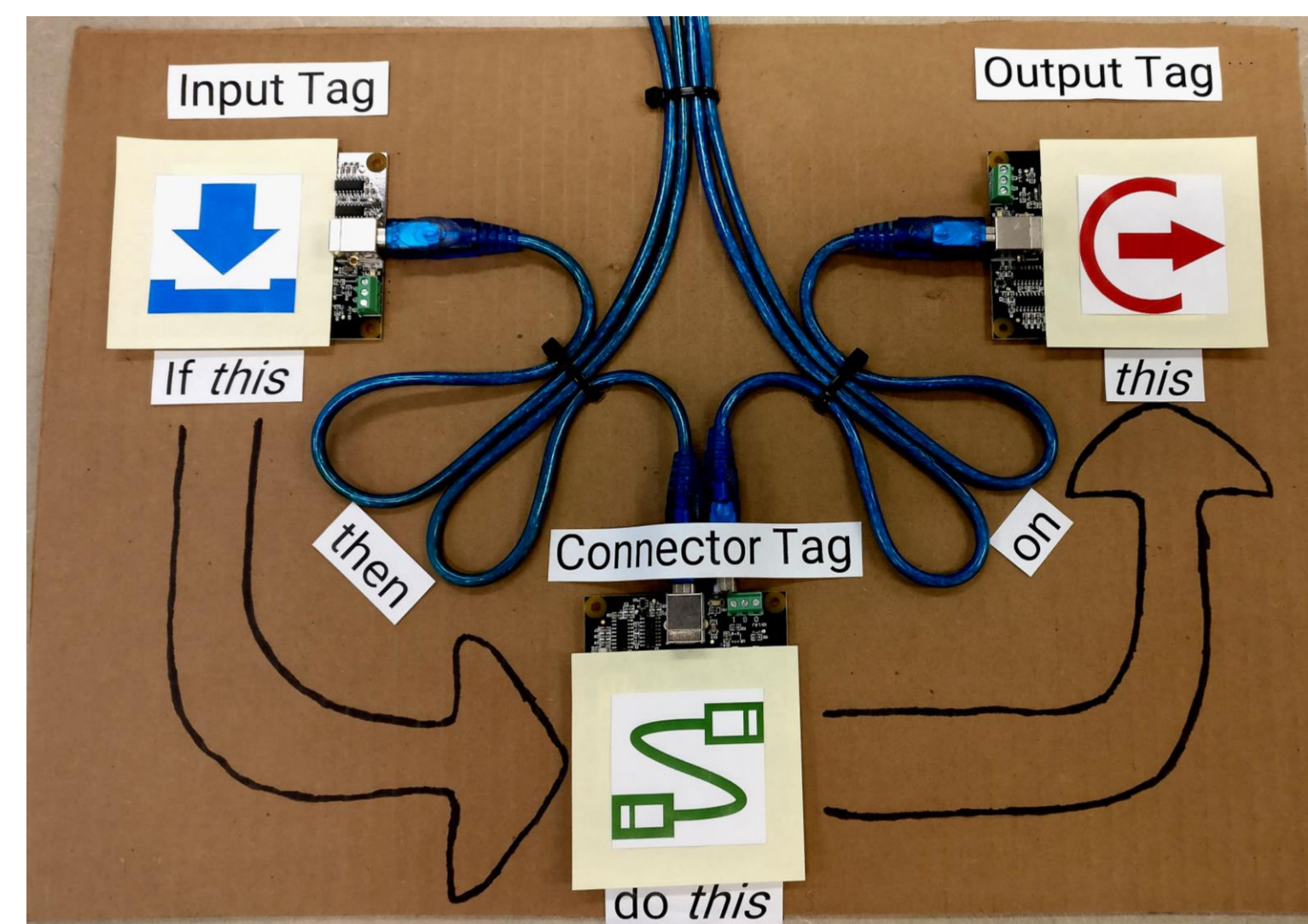
Sound Effect non-wearable output



Toggle on/off non-wearable connector

Program and explore behaviours on demand

Bod-IDE is an augmented reality (AR) 'mirror' that allows eFashion designers to **experiment with virtual interactive wearables**. We envision Bod-IDE as a compliment to conceptual sketching, where designers can prototype embodied interactivity using an AR representation of their garment. This frees eFashion designers from the need to solder or sew physical materials and instead focus on experimenting with wearable interactivity – exploring alternate behaviors that arise from on-the-body prototyping.

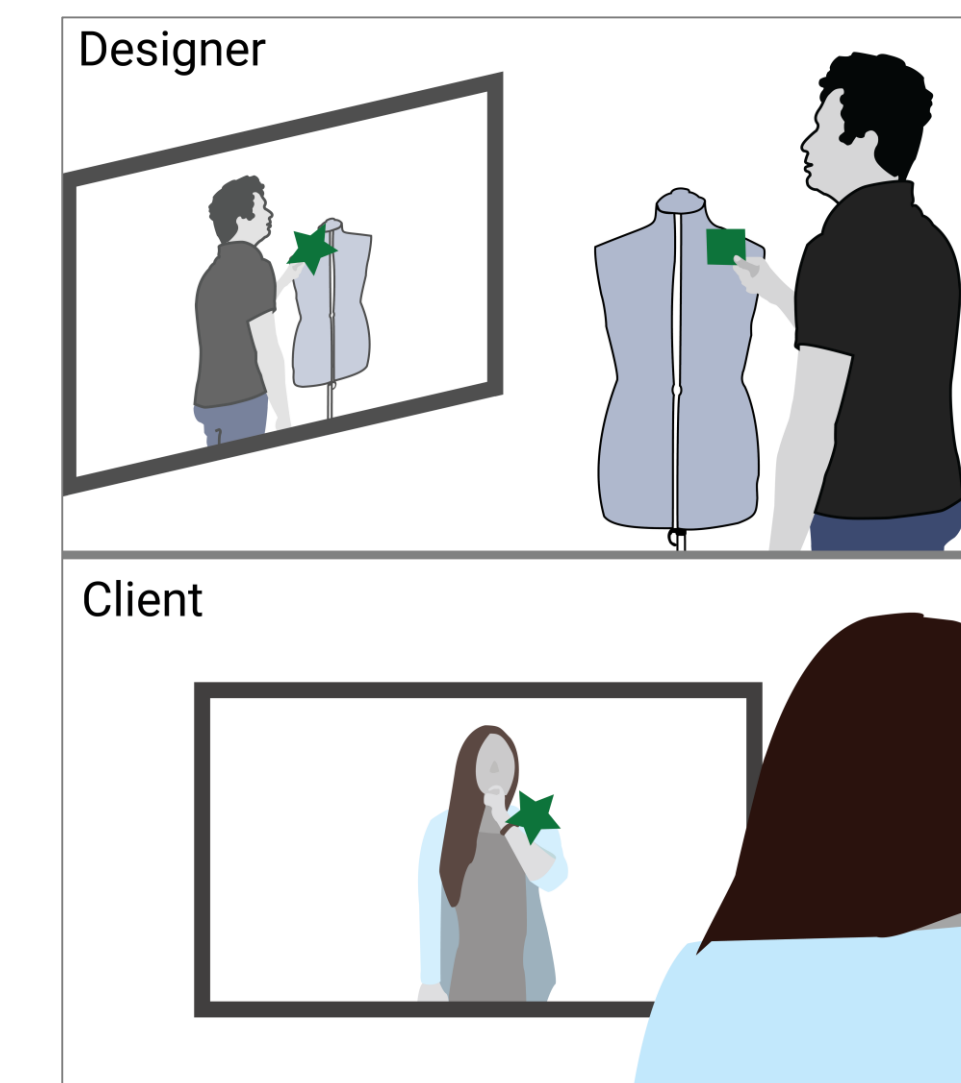


The Program Board accepts "if *this* then do *this* on *this*" programs using paper tags. Once programmed, wearable tags with retroreflective markers can be interacted with in the mirror

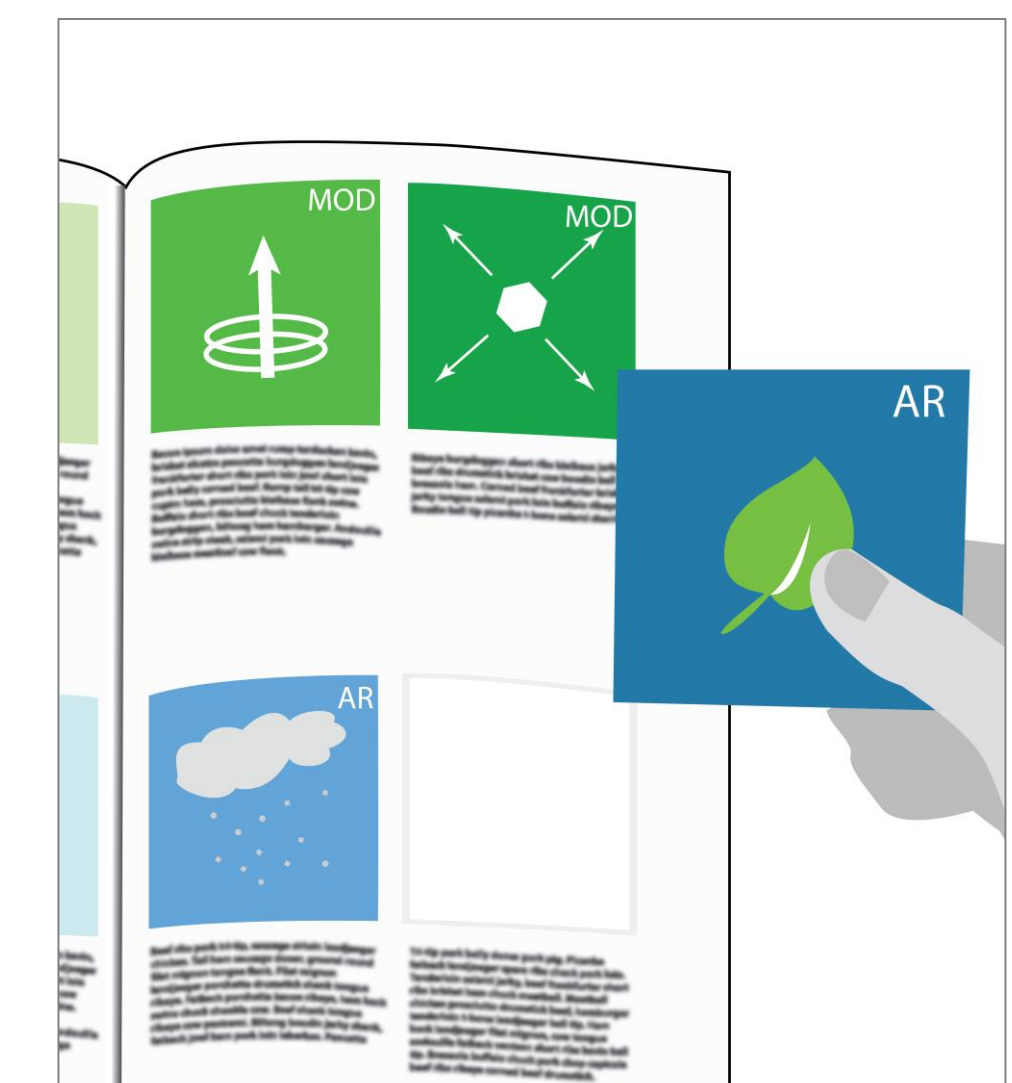
Visions for Future Work



Encourage exploration in new environments with materials that do not exist in the real world



Support discussion and design input with collaborators and stakeholders across disciplines



Bridge physical and virtual materiality through techniques like draping with virtual interactive textiles