

Carry-on for Consciousness: An Embodied Travel Writer Trainer

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Artist Bio – Brandon Ables

Brandon Ables is an interdisciplinary artist who explores new methods of human-computer interaction for self-improvement and learning. He researches peripheral interaction, multitasking, slow technology, active hypnosis, and the quantified self. He has a MFA from UMBC in Intermedia and Digital Art, a MAT in Secondary Education from Towson University, and is currently a student in the Human-Centered Computing PhD program at The University of Maryland, Baltimore County (UMBC). He received his BA in Philosophy and Psychology from Duquesne University. He is a Certified Hypnotist through the National Guild of Hypnotists.



Links to Video Demos

1. Full Demo Video - Carry-on for Consciousness –
<https://youtu.be/BdLJSbRmCR0>
2. Faders, Handle, and Dymo Demo Video -
<https://youtu.be/9YBdffTPDK8>
3. 360 Video Demo – Carry-on for Consciousness -
https://www.youtube.com/watch?v=x_IL29k_17M



Adapted Cases 1

- A Black and Decker JS500 corded jigsaw was used to cut holes in the suitcase.
- Binding bars for paper report covers were used to line the cuts to present a more finished appearance.
- The faders are covered in neon self-adhesive labels to pair with each sensor.
 - Green = Eye Blink Switch
 - Orange = Chin Interface
 - Pink = Wrist Swing Sensor
 - Yellow = Step Sensor



Adapted Cases 2

- This view shows another hole cut in the carry-on to accommodate the power cord which would not fit within the case.
- Both sides of the camera were also cut open to accommodate wires for the piece and to provide access to the printed Dymos.
- The camera case holds two Roland TM-1 midi drum modules and the Dymo 450 Labelwriter Printer.
- Zip-ties were used to secure the camera case to the top of the carry-on.



Adapted Cases 3

- This side of the camera case was cut open to provide access to the labels printed by the Dymo machine.
- A faint blue light is visible when the Dymo is powered up.

Letter Key

- The letter key is made from five binding bars for paper report covers hot glued together.
- The letters on the faders are aligned so the highest and lowest numbers are not repeated so there are no duplicate letter assignments.
 - A = 1
 - M = 13
 - N = 14
 - Z = 0
- The labels were printed on a Brother P-Touch Label Maker PTD220.
 - This labeler was also used to print the indicators for the buttons on the handle as seen on the next slide.





Microswitches in 3D Printed Frame Mounted to Handle

- Ten microswitches labeled as follows:
 - Green = Eye Blink Switch
 - Orange = Chin Interface
 - Pink = Wrist Swing Sensor
 - Yellow = Step Sensor
 - Dymo Window (moves cursor position)
 - Select
 - Print (moves cursor to print button)
 - Delete (for mistakes and clearing last word)
 - Space (in case you want to type a short two-word phrase)
 - Start Faders (resets all faders to “A” to start a new word)

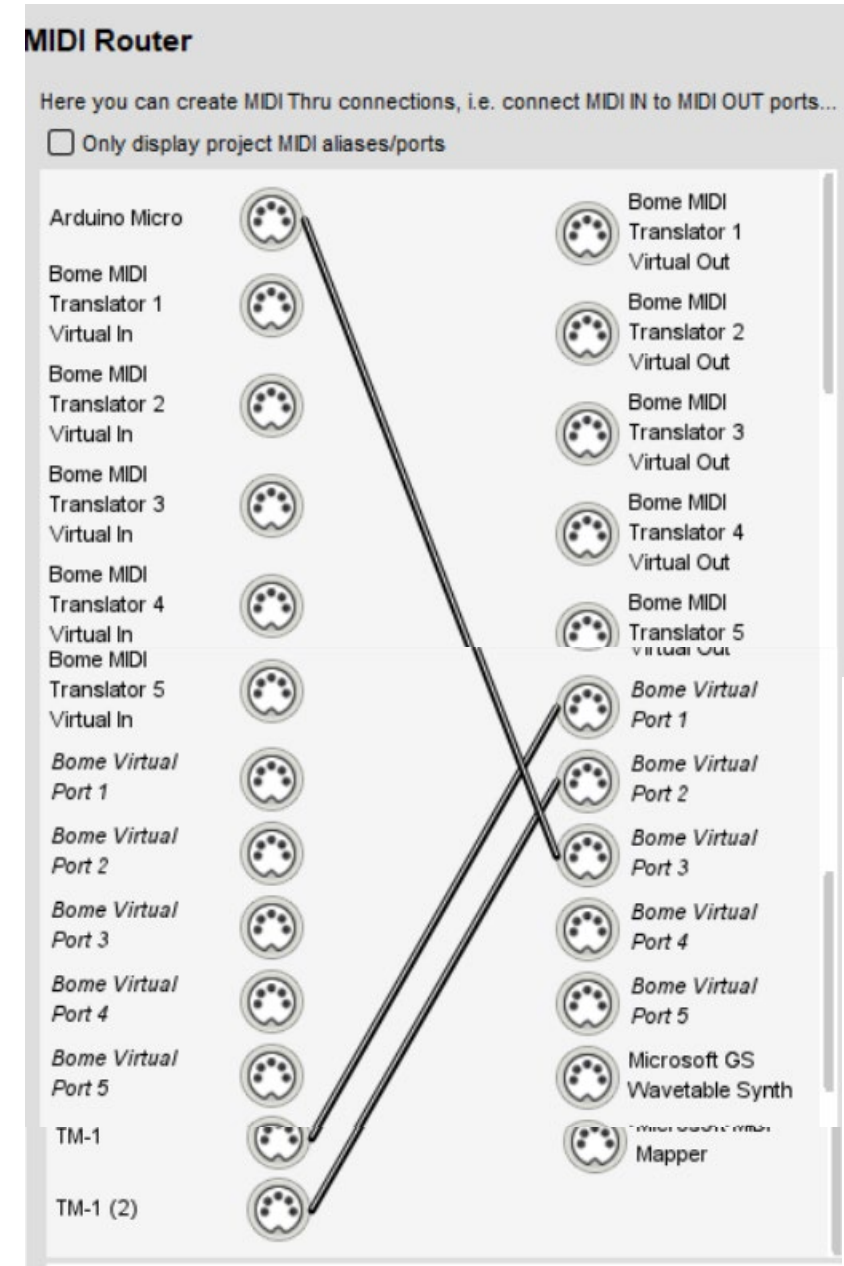


Back of Handle

- 3D Printed frame houses an Arduino Micro, mini breadboard, and multiple wires.
- 3D printed frame is attached to the handle using zip-ties for easy removal/reattachment in case of real travel.
- Two binding bars for paper report covers the gap at the top of the 3D printed frame so the wires are protected and do not show.

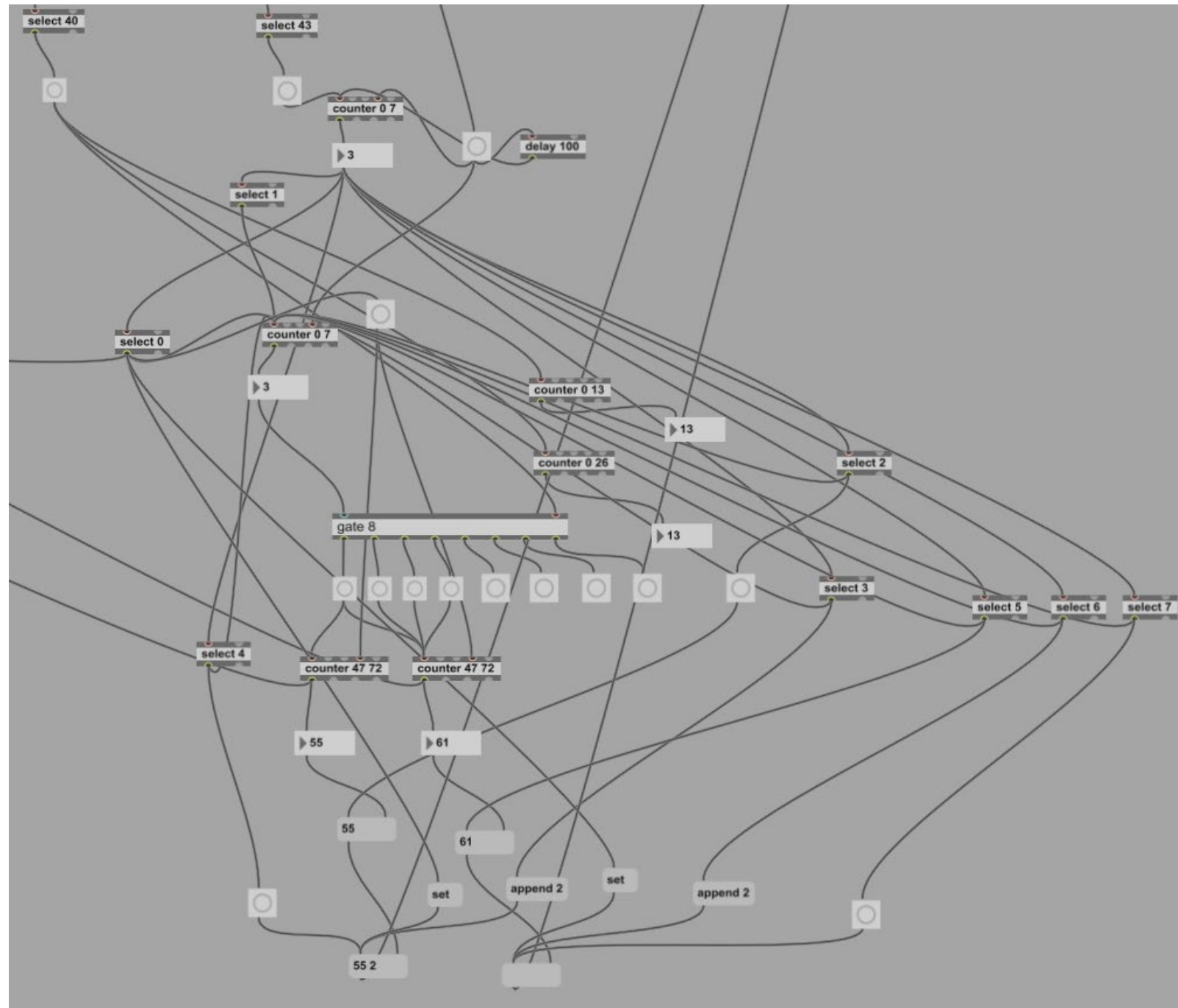
Midi Signal Routing

- Midi signals from sensors (through TM-1s) and through the buttons on the handle (Arduino Micro) are routed through Bome Midi Translator Pro
- Sent through Bome Virtual Ports that are recognized by Ableton Live 12



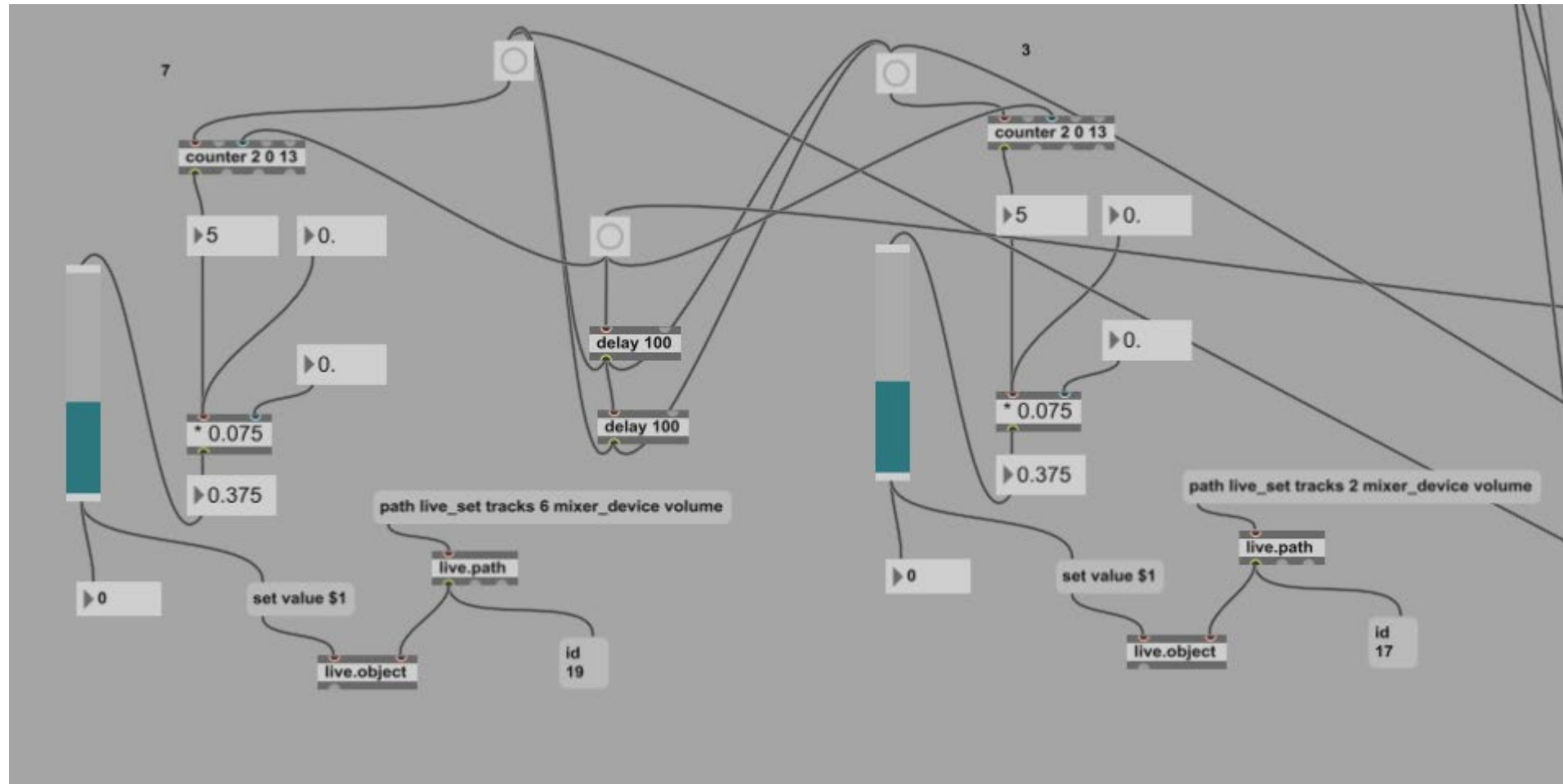
Max

- Select 43 = signal from button on handle
- Select 40 = signal from wearable sensor
- Counter 0 7 selects gate and selects letter for each fader



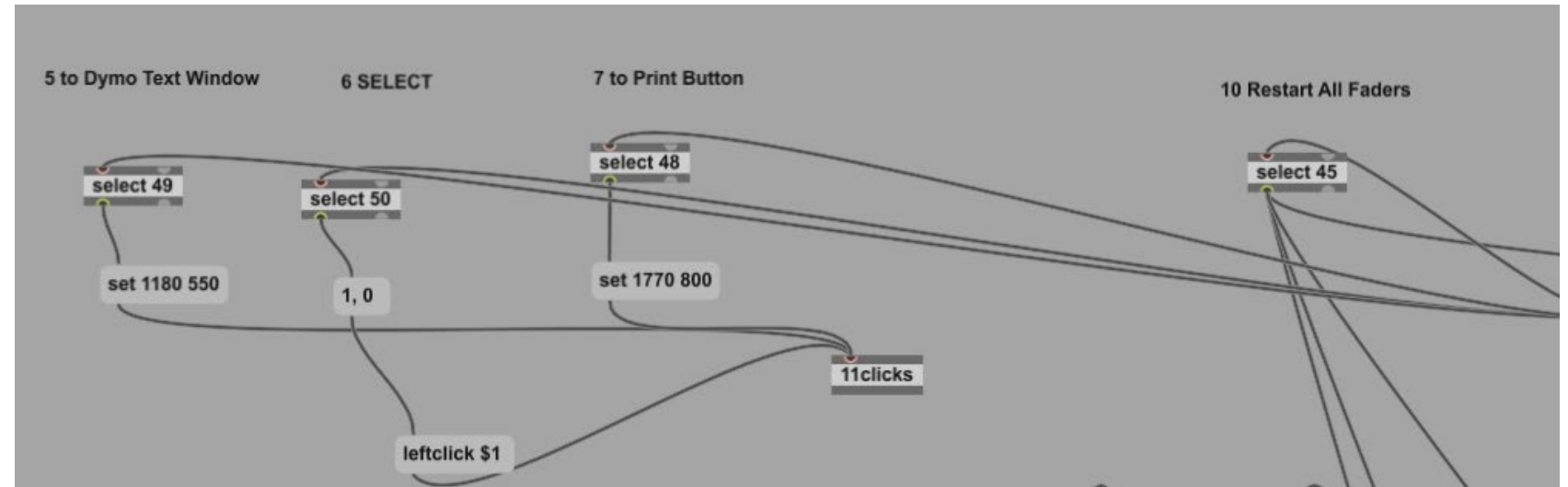
Faders Go from Max, to Ableton, to X-Touch Compact

- Faders count up to 13 then back down again.
- Fader activity sent to X-touch through Ableton Live 12



Max Objects 11strokes and 11clicks

- 11clicks controls mouse movement and 11strokes controls keystrokes.
- These were the six buttons on the handle that were not directly tied to one fader.



Thank you for your consideration.

