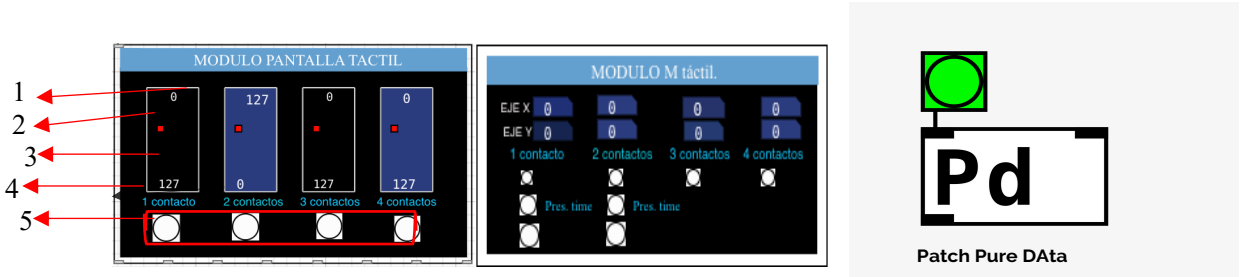
Patch Pure DAta

TOUCH SCREEN MODULE

Diseño y desarrollo de sistemas MMHCI híbridos con bioseñales y un DMI de smartphones, para obras bio-interactivas mixtas y performáticas

Pure Data Patches for the PhD Thesis: Juan Pablo posada Alvarez



1. **REF Display**: Each of the rectangles represents the touch screen of a Smartphone. The odd contacts are represented in black and the even contacts in light blue, indicating that each one is independent.
2. **REF touch:** This red dot is the representation of the smartphone and corresponds to the point of contact on the actual screen. Any movement made on the screen is displayed through this pointer. As more touchpoints are used, the other touchpoints are activated.
3. **Touch Y:** This value is equivalent to MIDI values of resolution on the Y-axis of any touchscreen. Each touchpoint has an independent value for this value, keeping in mind that the values delivered by the app are between 0 and 1.
4. **Touch X:** Similar to the previous point, this value represents in MIDI resolution values, the X-axis of the entire touch screen. Each touchpoint has a separate value for this parameter, also between 0 and 1.
5. **ACT Touch**: These buttons display the activation status of the binary gates, which are triggered by each touch on the touchscreen. Each button corresponds to one of four possible touchpoints. The operating logic is as follows: when a contact is detected (touch down), the button sends a value of 1; When the contact ceases (touch up), it sends a value of 0. In this way, each button functions as a real-time visual indicator of the binary state (active/inactive) of its respective touchpoint.

The module is connected as follows:

- **Inlet:** Input for OSC module

- **Outlets 1:** Output of binary gate values for first contact with the touch screen, When contact is made with the screen it sends a "bang", likewise when contact is stopped.
- **Outlet 2:** Packaged MIDI Values Output for Touchscreen (x, y) coordinates between 0 and 127 of first screen contact
- **Outlets 3:** Output of Binary Gate Values for Second Contact with Touch Screen.
- **Outlet 4:** Packaged output of MIDI values for touchscreen coordinates (x, y) between 0 and 127 of the second contact with the screen
- **Outlets 5:** Output of Binary Gate Values for the third touch screen contact.
- **Outlet 6:** Packaged output of the MIDI values for the touchscreen coordinates (x, y) between 0 and 127 of the third contact with the screen.
- **Outlet 7** Output of Binary gate values for the fourth touch screen contact.

Outlet 8 Packaged MIDI Values Output for Touch Screen (x, y) coordinates between 0 and 127 of the third contact with the screen