

# Interactivity Randomness and Control workshop

by Tom Kessler

This workshop utilizes pre-made instruments and effects from Automatonism, MobMuPlat, Mike Moreno, and others, and guides you on how to alter and adapt them to your specific needs.

Here's a list of relevant links:

<https://mikemorenosp.github.io/> Useful library of abstractions for pd  
<http://www.martin-brinkmann.de/> various instruments and effects for pd  
<https://github.com/porres/pd-else> useful externals for pd  
<https://danieliglesia.com/mobmuplat/> pd on your phone  
<https://bela.io/> create beautiful interaction  
<https://forum.pdpatchrepo.info/> repository of pd patches

## Program

### **introduction to pure data**

types of signals and signal chains  
messages, bang, audio, midi, dac~ adc~  
digital vs analog inputs and outputs  
how to adapt existing pd patches for your own use  
generative music  
simple vs complex controls  
random seeds and beats (Mike Moreno drum machine patch)

### **introduction to bela**

working with a breadboard  
pull down resistor circuit  
sensor types  
flash an LED  
buttons and potentiometers in bela  
other sensor types  
build a sample player and synthesized drum machine on breadboard with bela

using trill  
build a trill controlled looper with bela and pure data

using the custom pcb  
wiring components  
Instrument design  
ordering and recycling parts