Learning DigiShow

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Basic Concepts

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Who likes DigiShow ?

Suppose you are an immersive show producer, or an interactive media designer, theater artist, dancer, musician, magician or none of the above. We hope to discuss with you all: To consider objects, spaces, people and systems as co-performers. We want to use DigiShow to provide an easier workflow. Even for an ordinary person, every daily scene in life may be transformed into your mini disneyland.

What is DigiShow ?

DigiShow is a lightweight control software designed for **performance scene** and **immersive space** with music, lights, displays, robots and interactive devices.

It serves as an easy-to-use **signal console**, also enables **signal mapping** between MIDI, DMX, OSC, ArtNet, Modbus, Arduino, Philips Hue and more digital interfaces.

Programming extensions using
Python, JavaScript, etc.

Virtual Pipe
(Web Socket)

Interactive content creation using
TouchDesigner, Unity, Unreal, etc.

OSC

Digital audio workstation such as
Ableton Live, Logic, etc.

MIDI Bus
IAC / loopMIDI

MIDI instruments and controllers

midi

Hue 网桥

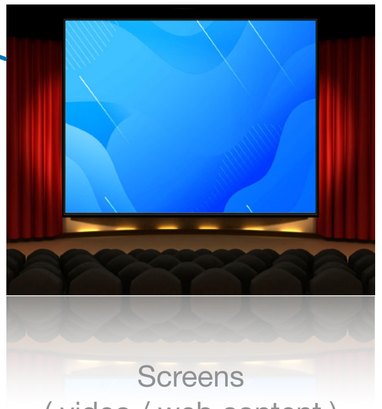
zigbee wireless

Philips Hue
smart home lighting

DMX-USB
ArtNet

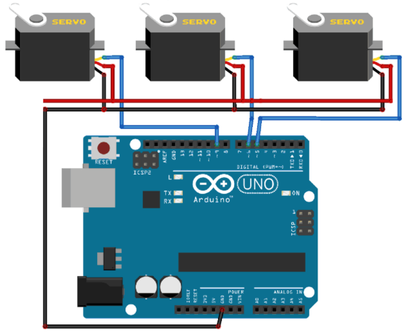
dmx

DMX stage lights
LED pixels



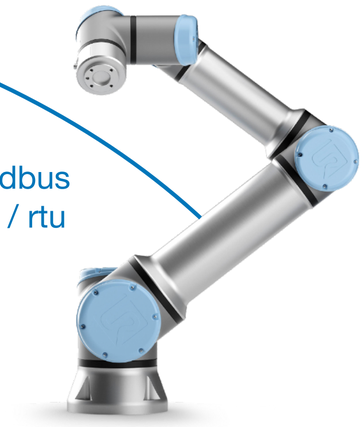
Screens
(video / web content)

usb



Arduino with
sensors, LED lights, servos, motors, etc.

modbus
tcp / rtu



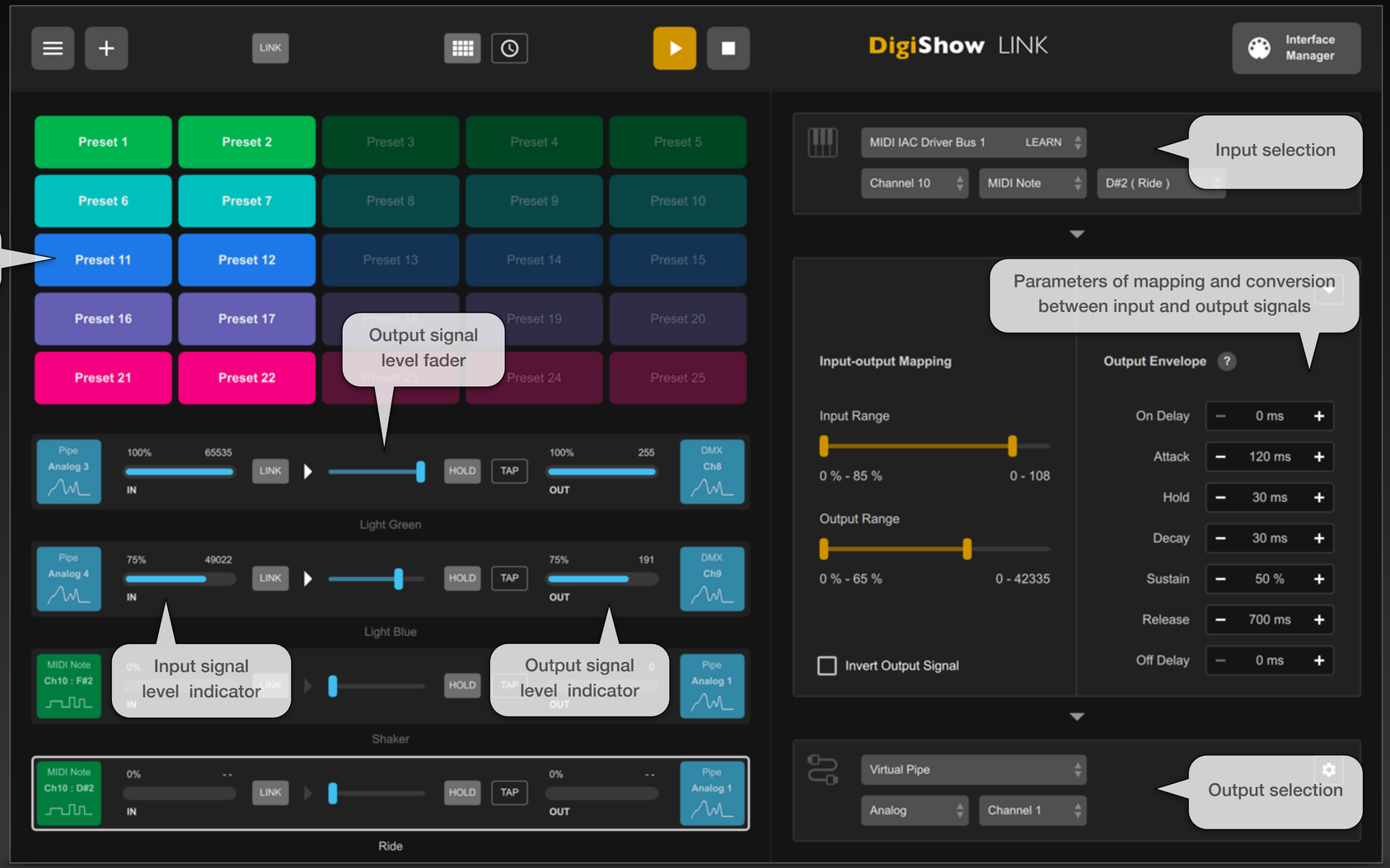
Industrial automation
machines and robots

DigiShow Signal Console

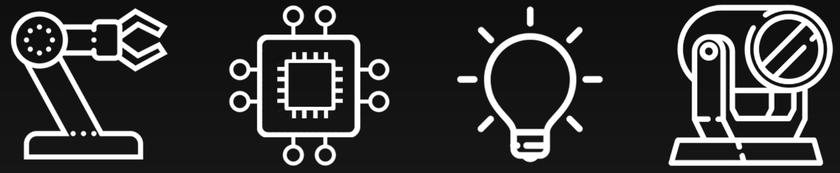
DigiShow itself is a simple and easy-to-use console software used to control various cross-media signals.

Comparison with lighting console

Lighting consoles generally only control stage lighting, DigiShow supports more signal types.



DigiShow Signal Mapping

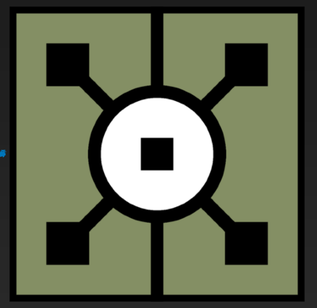


Ableton

MIDI

?

OSC



Ableton Live

DigiShow

TouchDesigner

Enables signal exchange between various hardware and software

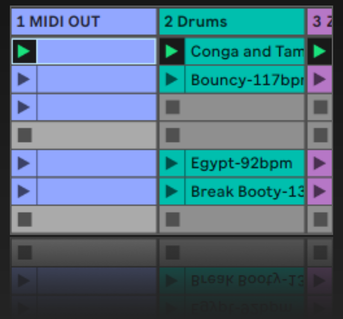
DigiShow Signal Mapping !

What do we create ?

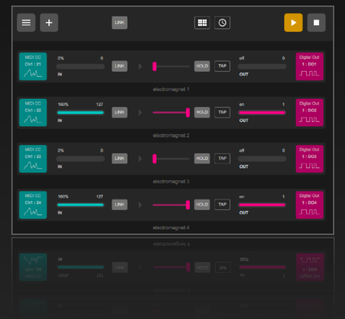
Signal Mapping Example 1

Dancing Ink (ferrofluids)

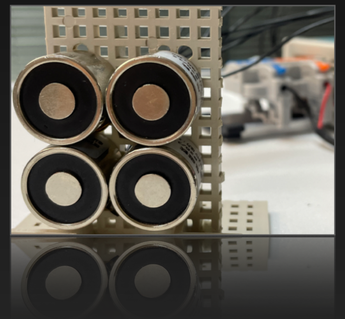
Ableton Live → DigiShow → Arduino



Arrange and play drum rhythms
and output MIDI signals synchronously

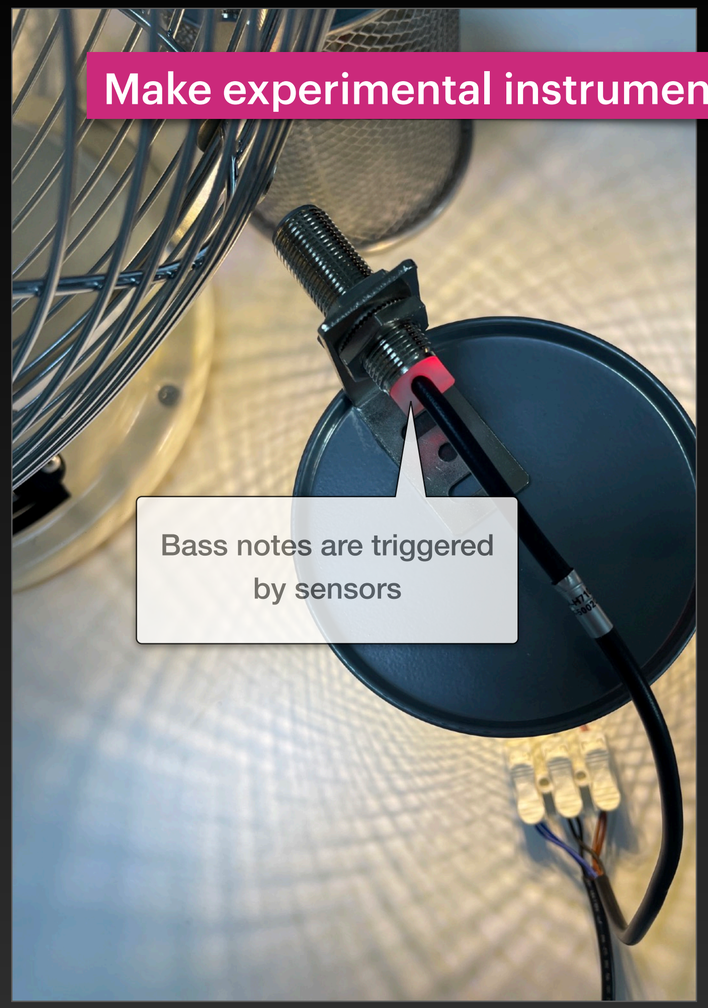


Receive MIDI signals
and map them
to Arduino IO switch signals



Receive switch signals to drive the connected electromagnets

Completely no coding required!



Arduino → sensor signals → DigiShow → MIDI notes → Ableton Live

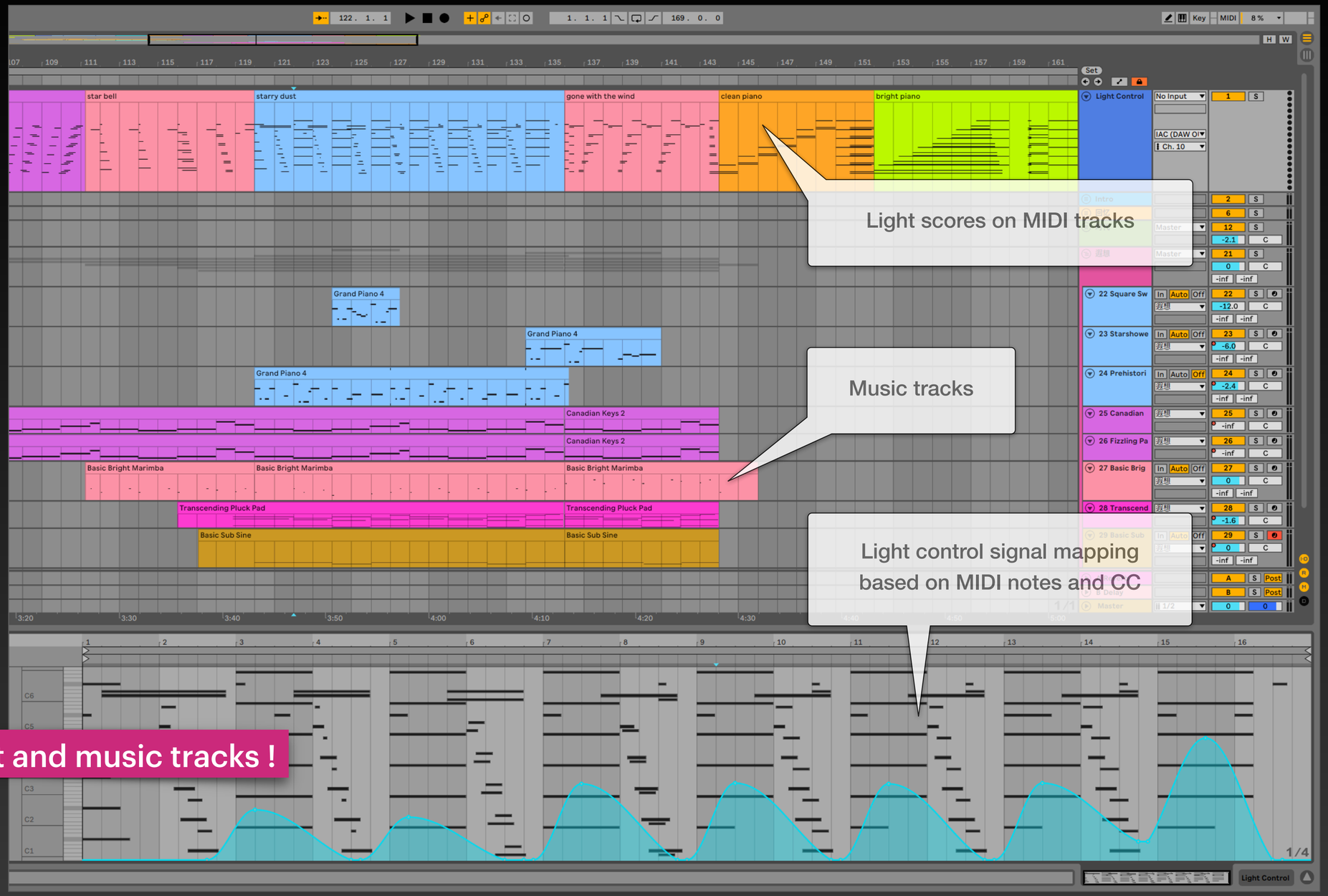
Signal Mapping Example 2

“ Jam with Things “

Signal Mapping

Example 3

Music-to-Light Show in Ableton



Production of both light and music tracks !

DigiShow Application Fields

- Interactive media **art installations**
- Interactive **performance props**, experimental musical instruments
- Cue control for **small stage**, linking audio, lights, screens, props
- Scene design for **immersive spaces** (shows or games)
- Scene design for **parties** and public events
- Scene design for **smart homes** or daily life environments

DigiShow Design Philosophy

- All are **performers**
  DigiShow requires a group of hardware and software playing their own roles to work together. They are all considered as co-performers along with objects, spaces, people and systems.

- The creator is the **director**
  Through DigiShow, we share the language to communicate with various hardware and software to direct the performance.

Learning DigiShow

1 Basic Concepts

2 Installation and Basic Usage

3 Signal Mapping

4 Common Operations

5 Artistic Lighting Applications

6 Digital Music Applications

7 Interactive Applications

8 Expressions and Scripts