SOUND INTERACTION WORKSHOP

INTERACTION

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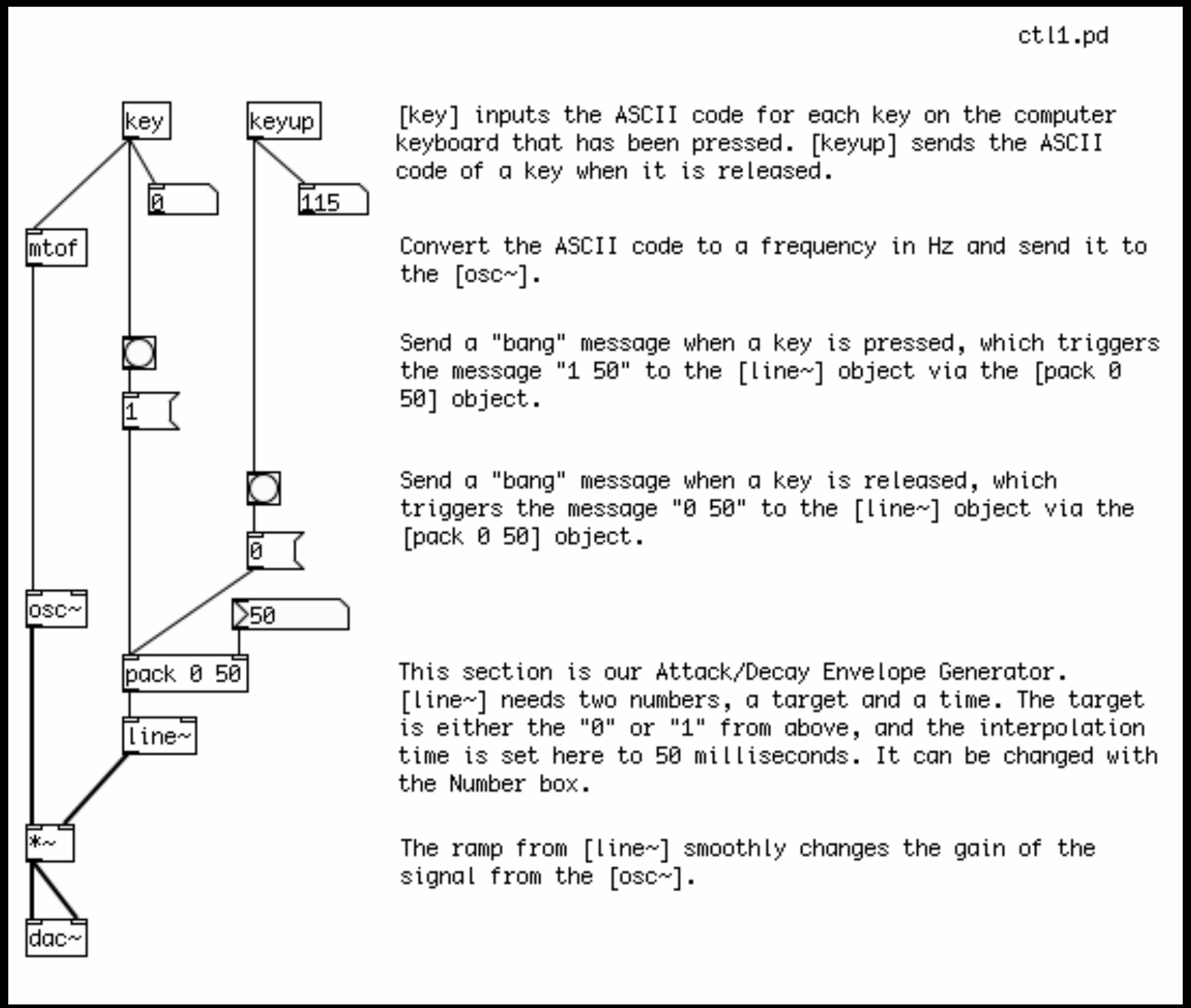
INTRODUCTION

Repository

https://github.com/ImanolGo/SoundInteractionWorkshop

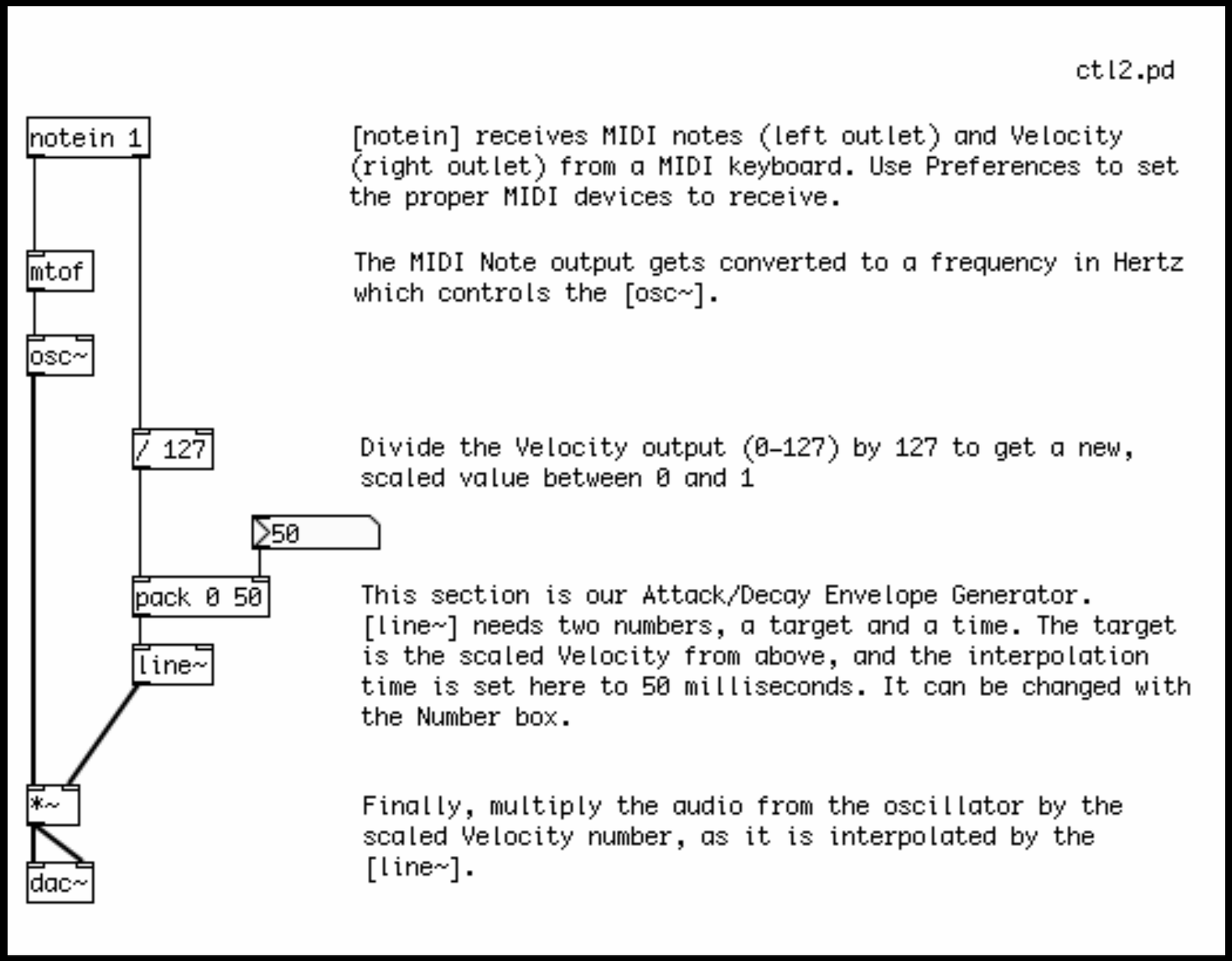
Keyboard

Input from the Computer Keyboard



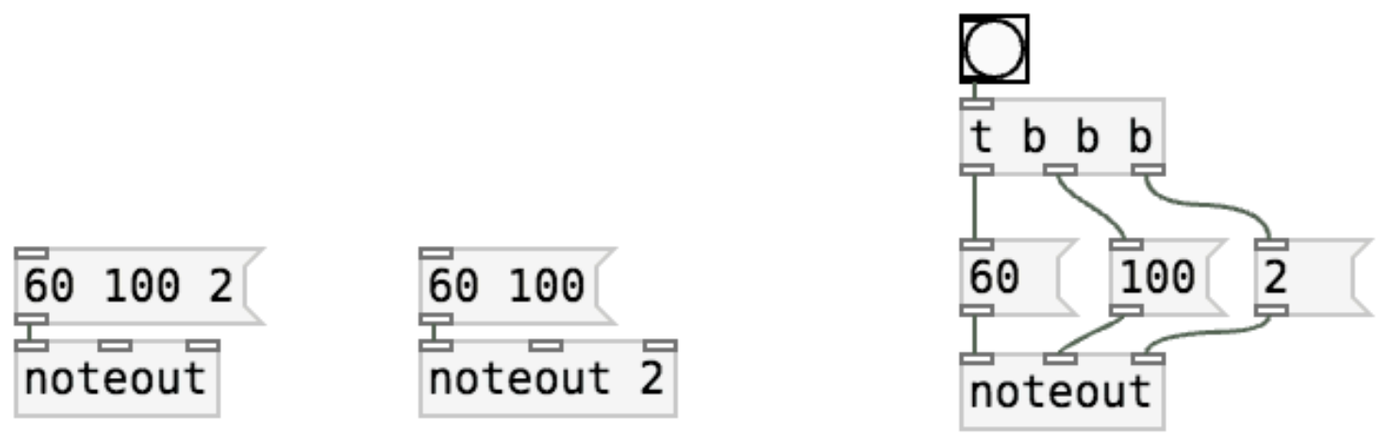
MIDI

Input from a MIDI Keyboard



[noteout]

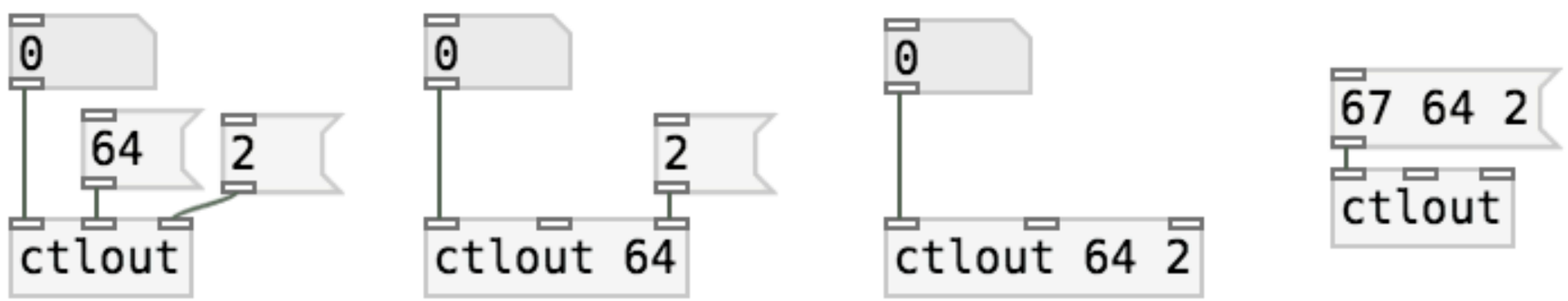
Transmit MIDI notes



(all three above) middle-c with velocity 100 sent to channel 2

[ctlout]

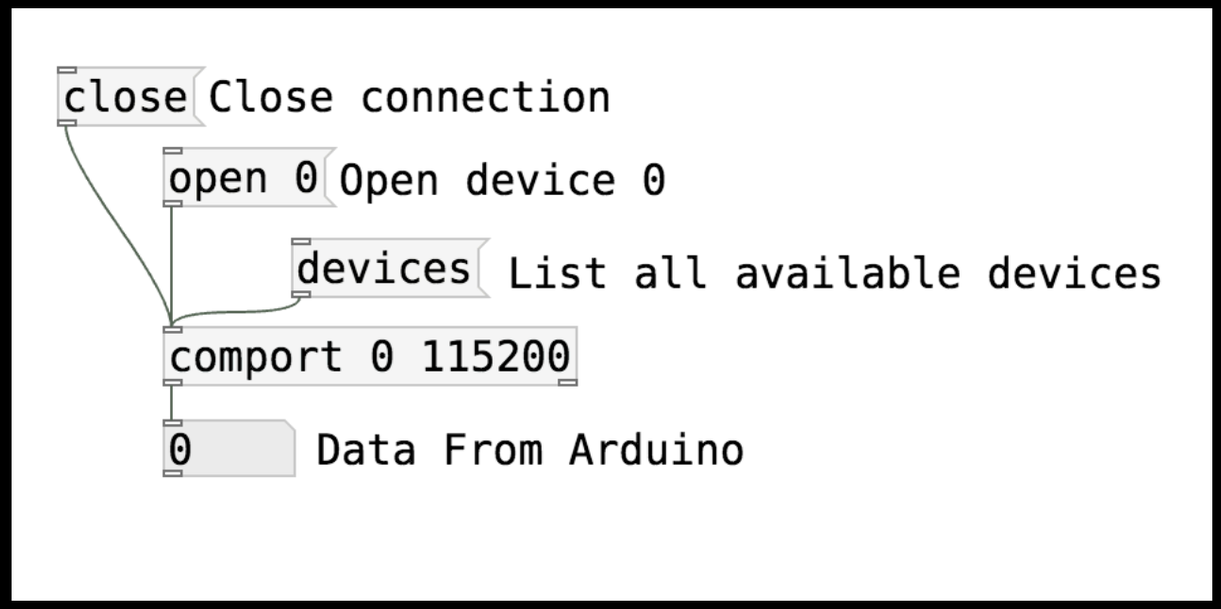
Sends control messages to the MIDI port. See a MIDI specification chart for various controller numbers/values descriptions.



All these examples will transmit control no 64 on channel 2 (remember to click the message boxes to initialize).

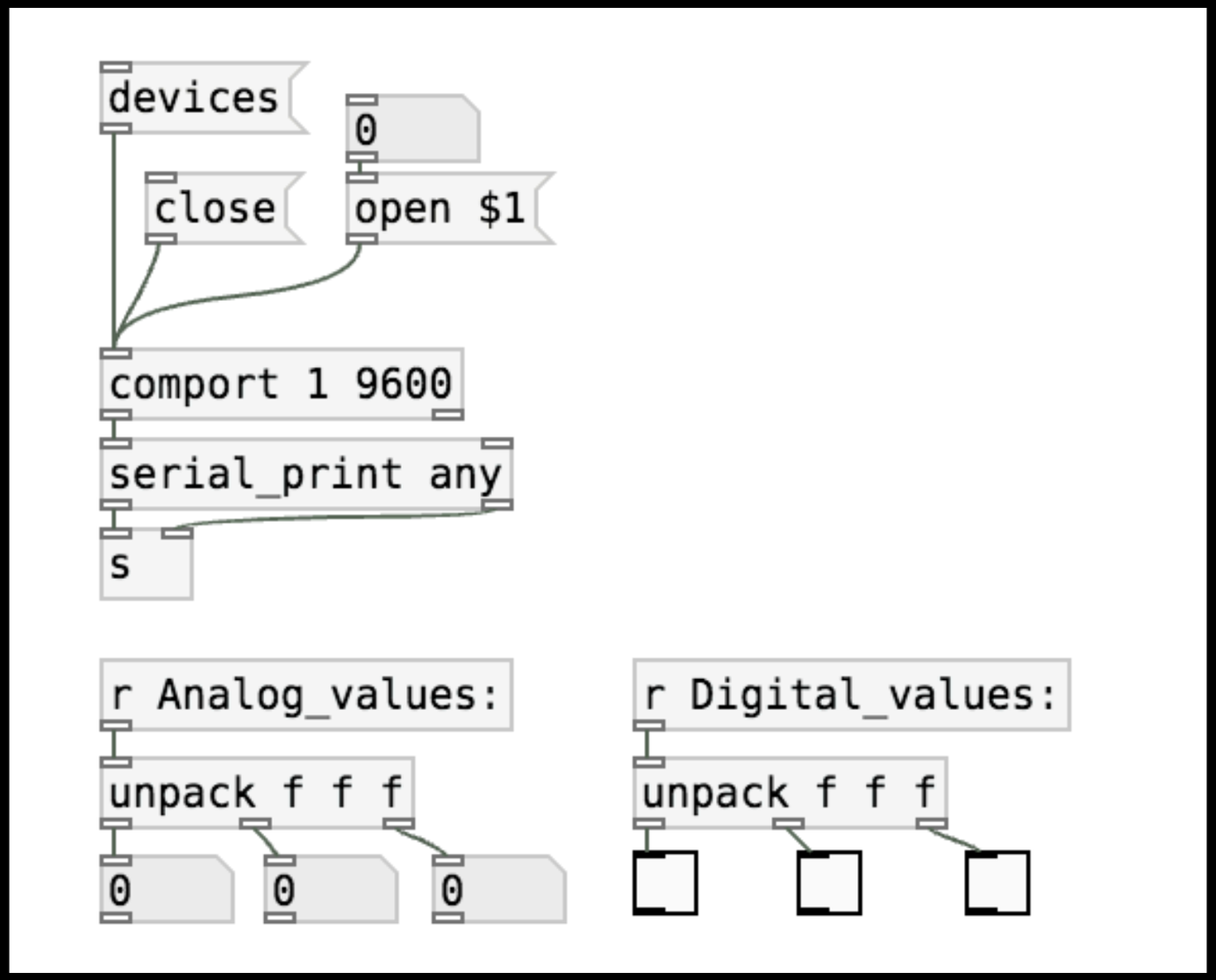
SERIAL

[Comport]


close
Close connection
open 0
Open device 0
devices
List all available devices
comport 0 115200
0
Data From Arduino

[serial_print]

Abstraction that works with [comport] and Arduino's Serial.print() and Serial.println() functions.



[serial_print]

1. Always copy the serial_print patch!
2. In Arduino use Serial.print(value) + Serial.print(" ")
3. A string must precede a value group
4. The last value of each group must be printed with Serial.println()
5. Take a look on serial_print-help.pd and serial_print.ino

[serial_print]

serial_print | Arduino 1.8.1

serial_print

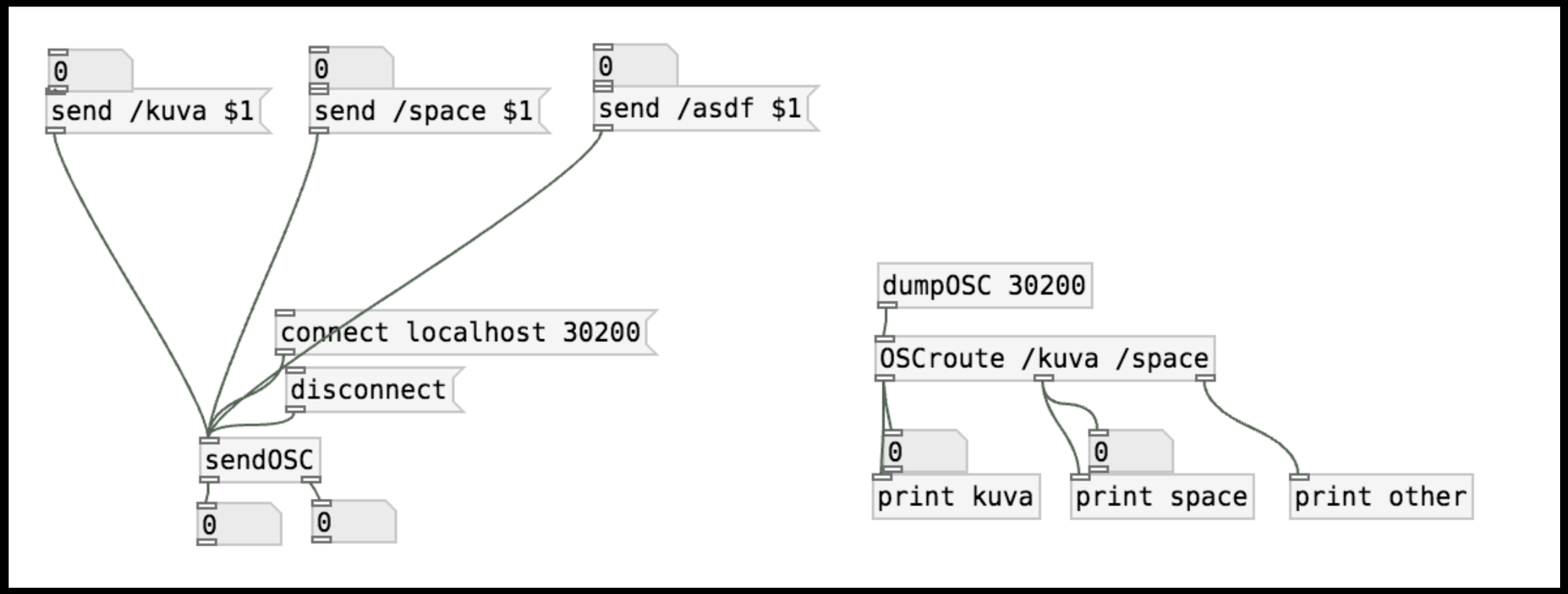
```
1
2 // analog values array size, must be constant
3 const int num_of_analog_pins = 3;
4 // digital_values array size, must be constant
5 const int num_of_digital_pins = 3;
6
7 // create an array to store the values of the potentiometers
8 int analog_values[num_of_analog_pins];
9 // create an array to store the values of the push-buttons
10 int digital_values[num_of_digital_pins];
11
12 void setup() {
13   for(int i = 0; i < num_of_digital_pins; i++){
14     pinMode((i + 2), INPUT_PULLUP);
15   }
16   Serial.begin(9600);
17 }
18
19 void loop() {
20   for(int i = 0; i < num_of_analog_pins; i++) analog_values[i] = analogRead(i);
21
22   for(int i = 0; i < num_of_digital_pins; i++) digital_values[i] = !digitalRead(i + 2);
23
24   Serial.print("Analog_values: ");
25   for(int i = 0; i < (num_of_analog_pins - 1); i++){
26     Serial.print(analog_values[i]);
27     Serial.print(" ");
28   }
29   Serial.println(analog_values[num_of_analog_pins - 1]);
30
31   Serial.print("Digital_values: ");
32   for(int i = 0; i < (num_of_digital_pins - 1); i++){
33     Serial.print(digital_values[i]);
34     Serial.print(" ");
35   }
36   Serial.println(digital_values[num_of_digital_pins - 1]);
37 }
38
```

Done Saving.

OSC

Open Sound Control

OSC is a protocol for sharing data across networks and applications.



Now, is your turn!

Questions?

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