



POLITECNICO
DI MILANO



HW2 – JUCE

UniCorn Flanger



BeetleJUCE

Adriano Farina
Alessandro Gorni
Giuseppe Risitano
Enrico Regondi
Rebecca Superbo

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<https://github.com/polimi-cmls-22/group11-hw-JUCE-BeetleJUCE>

more **magic**
for your
music

WHAT

save **money**

don't waste it on plugins

WHY

UNICORN FLANGER

(Unicorn Magic)

HOW

- any **DAW** :)
- microphone
- instrument
- ext audio clip

CONTROLS

- lfo
- sliders
- **break limits**

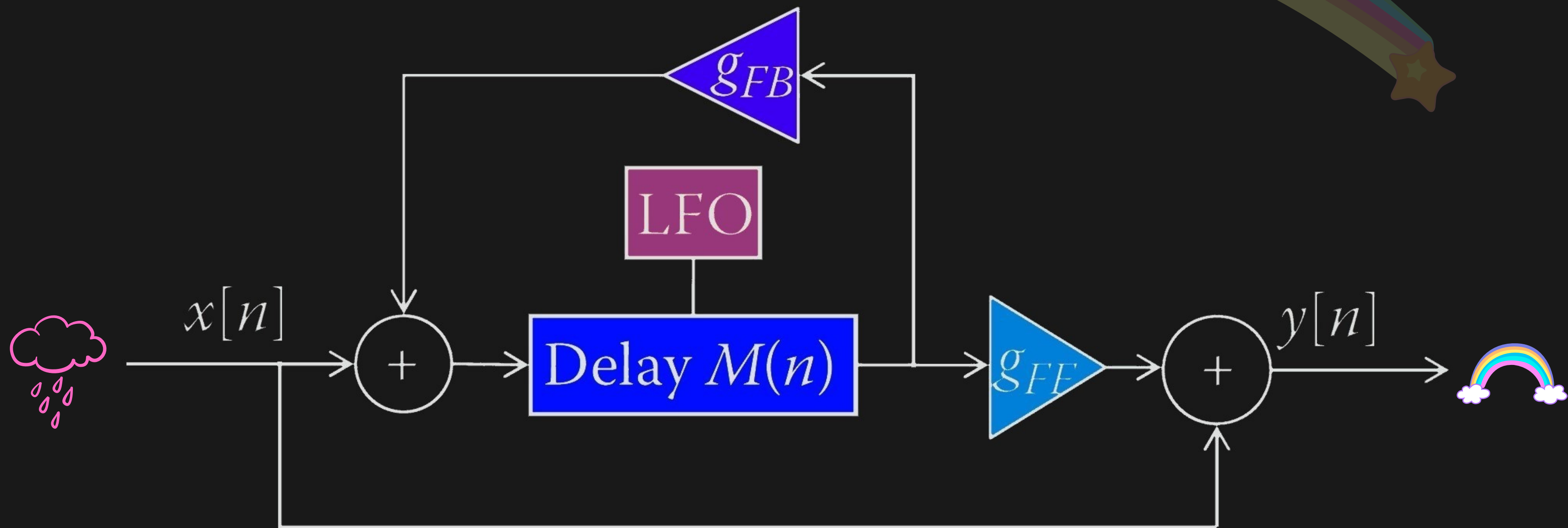


FLANGER?

A method for masking your mistakes in live performances! Wooooosh the sound and let it resonate in your head like dying brain cells!

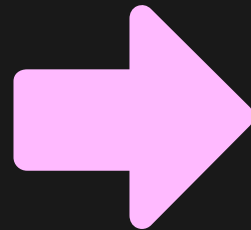


HOW DOES IT WORK ?

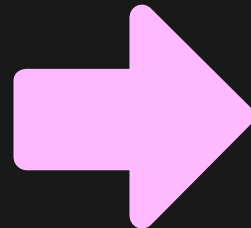


GUI

Main controls



LFO controls



Flanger_0

Rename Load Save Params Lock Random Mutate

Rename MIDI Learn Mode Processing Sync None

Delay/Amount

15.00

Mix

1.00

Feedback

0.50

Sweep

1.00

Speed

1.00

LFO Type

Sine

Interpolation

Linear

☐ Invert phase

Other controls

WHY SLIDERS ONLY?



We're using computers, not wooden cabinets



Chorus

Speed Sweep Dry/Wet

50 0.00

Delay Feedback

Delay/Amount

15.00

Mix

1.00

Feedback

LFO Type

Sine

Interpolation

Linear


☐ Invert phase




MAIN CONTROLS


1 Delay —————→ **HOW MUCH?**
(typical values: 5 ÷ 10 ms)

2 Mix —————→ **DRY OR WET** **SOUND ON**
(slider ranging from 0 ÷ 1)

3 Feedback —————→ **GOING EXTREME** 
(slider range 0 ÷ 0.99)

LFO CONTROLS



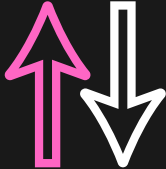
1 Sweep → **HOW STRONG?** 
(how much you want!)

2 Speed → **HOW FAST?** 
(typical values a few Hz)

3 LFO waveforms → **TRIVIAL...** 

- Sine
- Tri
- Square
- Saw

SECONDARY CONTROLS

- 1 Interpolation → *CAN YOU NOTICE?*  
 - Linear
 - Quadratic
 - Cubic
- 2 Phase inversion → *JUST IN CASE...* 

Flanger_0

Rename

Load

Save

Params

Lock

Random

Mutate

Rename

MIDI Learn

Mode

Processing

▼

Sync

None

▼

Delay/Amount

7.62

Mix

0.00

Feedback

0.61

Sweep

0.74

Speed

2.18

LFO Type

Sine

▼


Interpolation

Quadratic

▼

☐

Invert phase



Plogue Bidule [Untitled]*

File

Edit

Tools

Help

New

Open

Save

Undo

Redo

Parent

Parameters

Media

Palette

on

Audio File Player_0

▼

Presets

Rename

MIDI Learn

Mode

Process

File: police3.wav

00:00:00 / 00:00:08

K

Loop Mode

☐

Playing

Audio File Player_0

Flanger_0

Speakers (Realtek(R) Audio) (out)

dsp: 1.42 - 0.00 - 0.00 - 0.00 - 0.00 - 0.00 %

disk: 0.01 %

P

“

I've seen ~~the exorcist~~ ~~SuperCollider~~
JUCE about 167 times, and it keeps
getting funnier every single time I see it!

”

Beetlejuice (from Tim Burton's movie)