Programming the 808:
A project-based unit
for rhythm pedagogy

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Meet and Greet the 808

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- Listen to famous tracks using the 808
  - Talking Head's "Psycho Killer"
  - Marvin Gaye's "Sexual Healing"
- Play around with the controls
  - Note what the control layout presumes (4/4)
  - Note what sounds the 808 attempts to replicate
- Demonstration programing
  - https://www.youtube.com/watch?v=XRCdLN-brkI

Reset

PATTERN WRITE

INSTRUMENT-
SELECT

RHYTHM TRACK

MANUAL
PLAY

2nd
PART

1st
PART

PLAY

COM-
POSE

HT RS

MT CP

LT CB

SD CY

BD OH

AC CH

PATTERN CLEAR

STEP
NUMBER

TRACK
CLEAR

PRE-
SCALE

Drag to a Step
Button to set
Pattern Length

LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL LEVEL

TONE TONE TUNING TUNING TUNING TONE

DECAY SNAPPY DECAY DECAY

LOW CONGA MID CONGA HI CONGA CLAVES MARACAS

TEMPO

MANUAL

MEASURES
AUTO FILL IN
FINE

SLOW FAST

12 8
16   4
        2

ACCENT BASS DRUM SNARE DRUM LOW TOM MID TOM HI TOM RIM SHOT HAND CLAP COW BELL CYMBAL OPEN HIHAT CLS'D HIHAT

Rhythm Composer iO-808

Browser Controlled

4   5   6
3   7
2   8
1   9
MIN   MAX
MASTER VOLUME

BASIC VARIATION

A AB B

PRE-SCALE

1
2
3
4

STEP NO

1st PART

2nd PART

START
STOP

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BASIC RHYTHM ➡

1 2 3 4 5 6 7 8 9 10 11 12

I / F - VARIATION

A B

INTRO SET
FILL IN TRIGGER

TAP

1 2 3 4

⬅ INTRO/FILL IN

Tutorial

Made with ♥ by Vincent Riemer

Report an Issue

Meet and Greet the 808

Assignment #1: Programming

- Task is to create two "beats" (drum loop patterns)
  - A "good" pattern that is interesting and danceable
  - A "bad" pattern that is, well, not
- Students document the process by which they created their good and bad drum loops
- Drum loops are presented in class, ranked, and discussed.

Assign. #2: Representing Rhythm

- Having created a good and a bad beat, students then must notate them:
  - Using TUBS notation
  - Single-line using traditional rhythm orthography
- Students then reflect as to which form of notation is most useful for . . .
  - Enabling someone to recreate the 808 loop
  - Allowing someone to perform the pattern
  - Studying the pattern

Assign. #2: Representing Rhythm

In Class: Rhythmic Complexity

- Students read chapters from Godfried Toussaint's *Geometry of Musical Rhythm*
  - They learn to turn their notation into a binary necklace: "101010010100"
  - They learn to index the interval content of their necklace, represented as histograms
  - They learn how calculate the Shannon Entropy of their rhythms based upon the total interval context of their pattern

Assign. #3: Analytic Essay

- After listening to, discussing, notating, and analyzing your rhythms, defend one of the following claims (you must pick one):
  - My good rhythm really is better than my bad rhythm
  - My bad rhythm, I have come to realize, is actually better than my good rhythm
  - My good rhythm isn't really any better or worse than my bad rhythm.
- Use of their representation and entropy/ complexity calculations is required
- Proper citations, etc., etc., also required.

Desiderata

- Gets students to grasp how technology embodies musical culture and practice
- Allows for creative play
- Allows for substantive engagement for students with widely varying musical backgrounds
- Integrates composition, analysis, and writing
- Stimulates student interaction and discussion

And your students can do this too.