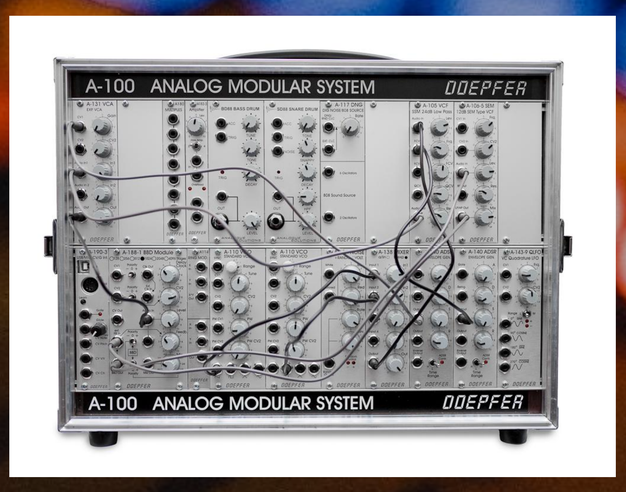
APPLICATIONS OF MODULAR SYNTHESIS IN MUSIC & SOUND DESIGN FOR VIDEO GAMES

Project Objective: Score one minute of gameplay footage and produce fifteen sound effects for a video game solely utilizing the virtual modular synthesizer *Reaktor Blocks*.

The Game: The game we chose for this project is entitled FURI which is a fast-paced action role playing game. We intentionally selected this game as it has an art style and color palette that is retrospective to games from the 1980s era like *Tron*—which Modular Synthesizers accompany well.



What is a Modular Synth?: An electronic device (or program) that generates a signal which can be altered one parameter at a time using specialized controllers—or "modules." There are many types of modules that can affect different parts of a signal such as oscillators, filters, amplifiers, and many others.

Basic Types of Modules:

- Oscillators: On physical synthesizers a continuous voltage source will cause this type of module to emit a simple waveform (sine, square, saw, etc.).
- Filters: A module that attenuates the source signal at certain frequencies.
- Amplifiers: This module raises the overall volume of the signal and can distort it when applied liberally.
- Sequencers: A module that repeats a configurable pattern of voltages/signals.
- Effects: Modules that further alter the signal which may include delay (echoes), reverb, and many others.

Findings: The sonic possibilities of a Modular Synth are endless which gave us a lot of freedom in creating sound and music. Constraints often aide the creative process, however, which made these freedoms like a double-edged sword at times. Although we faced many challenges throughout this project, we had a plethora of creative tools at our disposal to surmount them.

FURI + Reaktor