



MBET Senior Project

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Initial Project Goals

1. To design and have manufactured a PCB for the “Warp Repeater” effect pedal as this project’s deliverable
1. To draft a robust and viable business plan that considers the costs, financials, marketing, and strategy, etc, for a product-based startup. Since the idea is to start small scale, this business plan will also form a strategy for scaling production in the future.



Project Skills



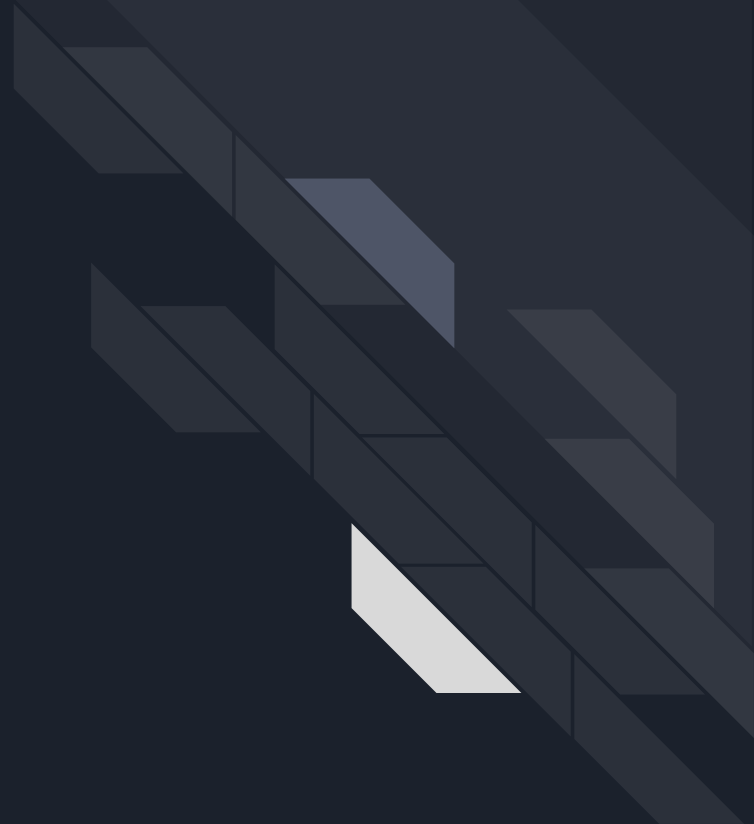
Business
Planning

Circuit
Design


Cost
Analysis

PCB
Layout

Pedal Demonstration







Post-manufacturing Solutions

Incorrect Resistor Footprints

After thorough analysis, it was determined that every resistor in the circuit is well within the safe threshold to use 1/8W resistors instead of 1/4W.

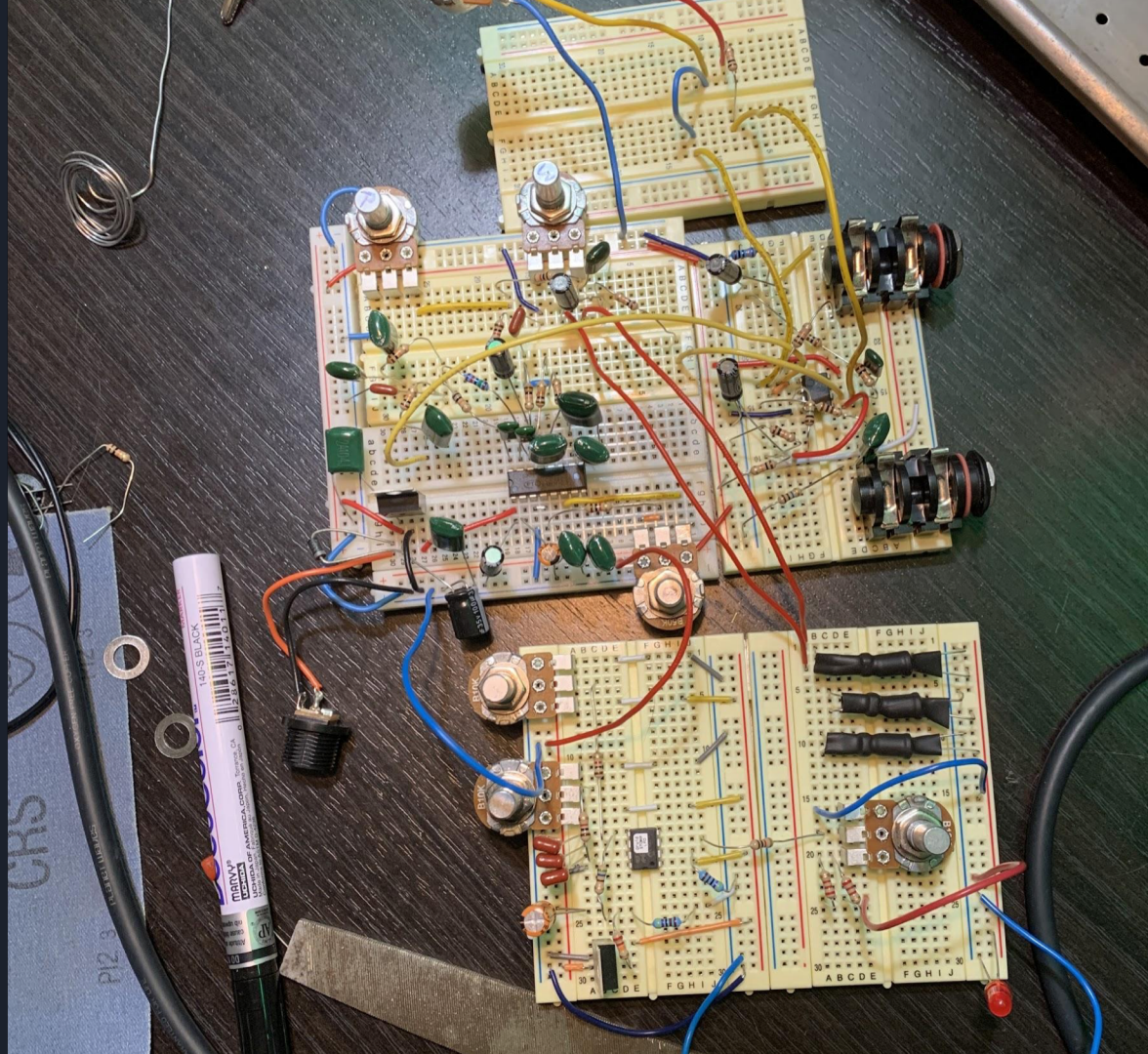
Dry Mix Coupling Flaw

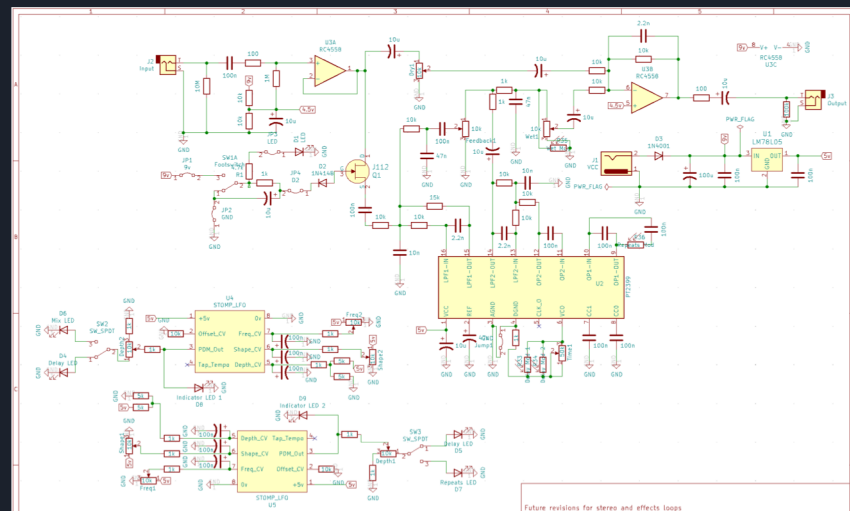
Polarized coupling capacitors had to be added in order to isolate the dry mix potentiometer from the rest of the circuit.

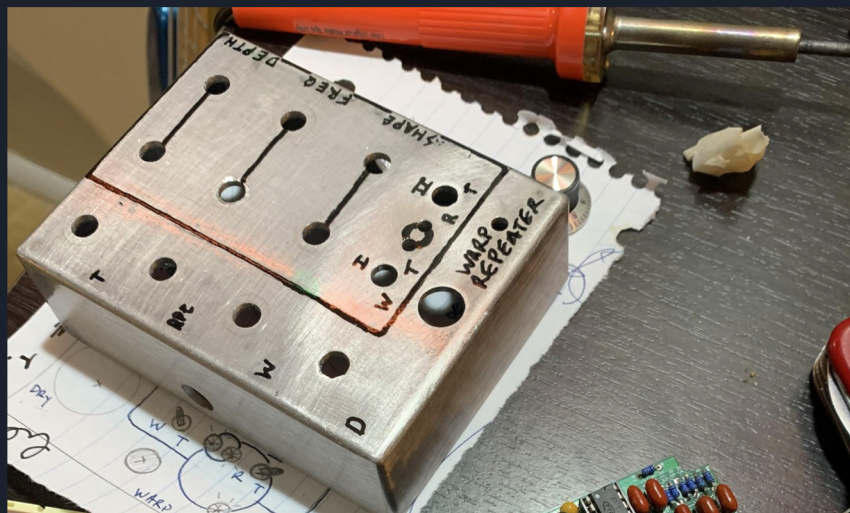
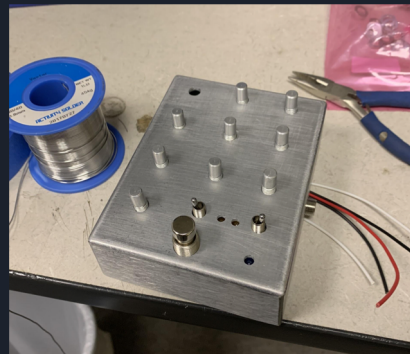
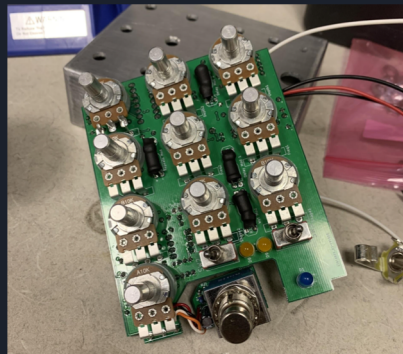
PTH Diameters for Electromechanical Parts

Solder lugs were filed down to fit. Future board revision has plated through holes for these components with a slightly larger diameter (a few mils) to accommodate manufacturing tolerances.

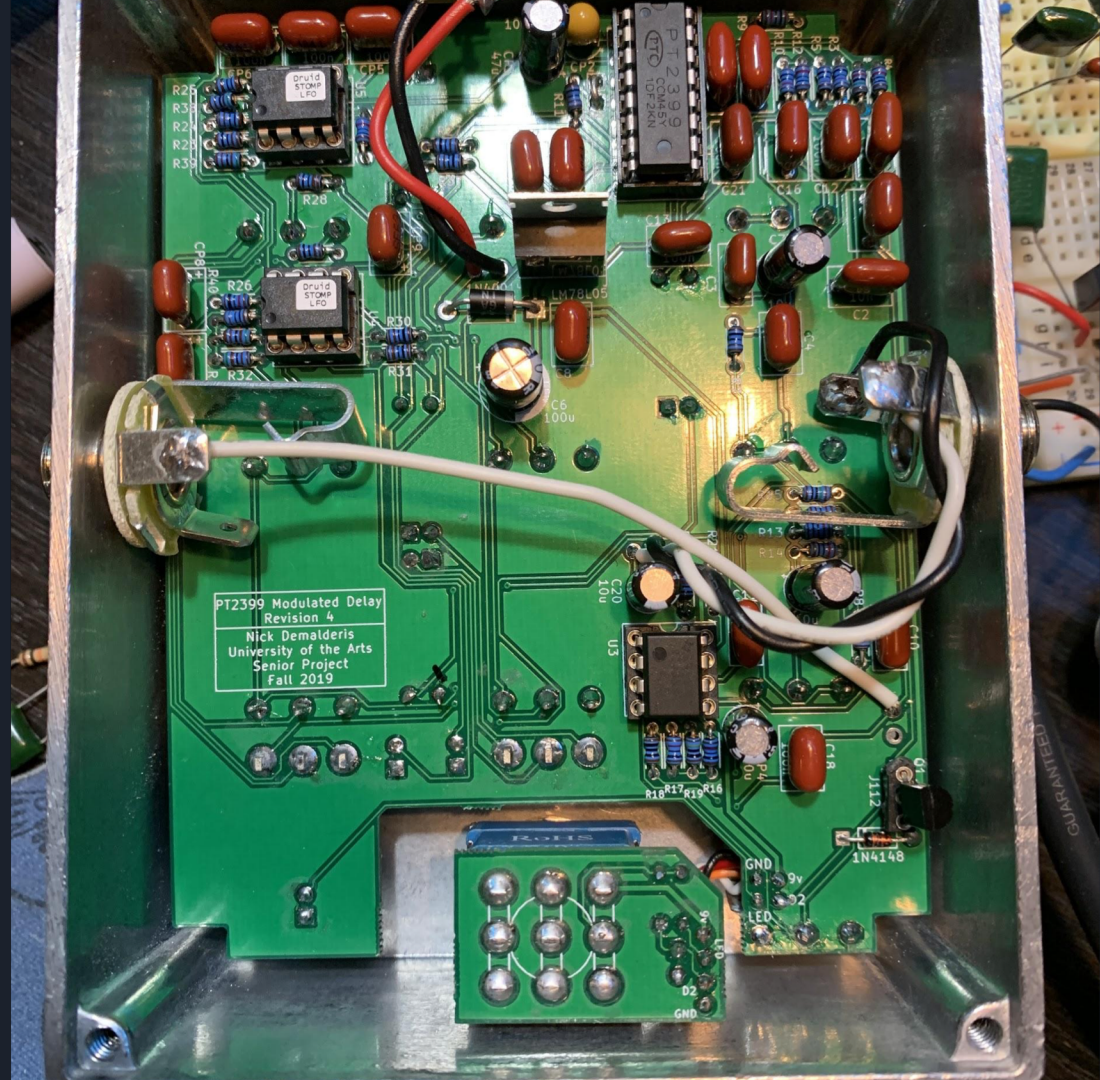
Breadboard Prototype







Assembled PCB



Assembled Pedal





Maldere Effects

Boutique Effects Pedals

Flagship design

The “Warp Repeater”

Basic Cost/Pricing

Charged by individual pedals

Price: \$300 per pedal

Cost: \$170 per pedal

“Livable” sales goal: 20/month

> Based on a 200% standard markup <

Mission

Vision & Values

Maldere Effects: to leave behind the tried-and-tested in order to discover new potentials of stompbox effects, and push the boundaries of sonic exploration.

Competitive Strategy

Differentiation

Strategy

Competitors

Competitive Advantages

Communication

Social Media

Public Relations

Website & Newsletter

Advertising

Personal Sales