

Music Vibrator

Product Requirements

Product Description	
Market Need	Making the latest advancements in technology and design available to musicians in a single companion product, integrated into a wearable app to form a complete platform solution
Key Features/ Functionality	<ol style="list-style-type: none"> 1. Metronome (Very powerful, distinct vibration & flashing LED lights, Multi-Sync with 40+ devices can be connected together without the need of smartphone) 2. Tuner (Runs standalone on firmware, requires microphone) 3. Watch (Caller and text notifications, can tell the time) 4. DB Measurement (Notifies user when DB in room gets too high and gives health warning) 5. Rhythm Exercises (Initiate certain vibrations directly on the hardware and feel them on the go to internalize beats) 6. Bluetooth5.0 MIDI (Can function as a controller for other devices such as DAWs, Footpedals, etc.)
Other Product Compatibility, Ecosystem, etc.	Mobile app, developed by ourselves
Stakeholders	
Target User	Musicians of all instruments who know how to play music already or are even professional (high end market)
Target Purchaser (if different from user)	Musicians for themselves

COMMERCIALS AND REGULATORY

Countries of Sale	Every country in the world
Target Launch Date	Ships on July 31, 2018
Regulatory Requirements	
Safety (UL, CE)	
Emissions (FCC, CE)	Same as first gen
Interoperability (Cellular, WiFi)	Bluetooth 5.0
Labeling	
Regulatory Marks	Same as first gen
Country of Origin	China
Serial Number	Yes
Financials	
BOM Goal	40USD
BOM Detail	See at the end of the document below
MSRP	199USD
Acceptable Margin	500% (Niche product, high end product, high margin required)
Volume	
MOQ of First Production Run	2,500 expected pre-orders (= 500,000 USD) and 2,500 on stock for e-commerce & retail (5,000 units total)
Annual Volume	25,000
Timeline for Product Refresh (EOL)	Earliest possible product refresh, but unlikely: 2020 Most likely product refresh: 2021 Latest possible product refresh, but unlikely: 2022

ELECTRICAL HARDWARE AND SENSORS AND FIRMWARE

Output/Actuator Requirements	<ul style="list-style-type: none">- Very powerful vibration (stronger than gen 1)
Critical BOM Components	<ul style="list-style-type: none">- Vibration Motor- Microphone- Capacitive Touch- Bluetooth 5- Outer Wheel- RGBW LED- OLED Screen
Power Requirements	<ul style="list-style-type: none">- Very important is standalone battery life (Goal 3 months)- 8-9 hours of continuous use with vibrations and RGBW LEDs on)- Accurate Battery power readout very important both standalone and inside app
Connectivity Requirements	<ul style="list-style-type: none">- Bluetooth 5.0- High performance Antenna design (no module?) very important to ensure maximum range and reliability (Product will be used in performance scenario, e.g. live concert in front of 1000 people)