Ian: Hello! I’m Ian, that’s Mike, and there’s Dan. Our app is called Trashbox; you’ll see why. We wanted to make an app which performs live audio processing, designed specifically for musicians.

Guitarists today buy many expensive effect pedals and place them in series between their instrument and their amp. We want to consolidate this equipment into one iPad app at a fraction of the cost.

**SIGNAL FLOW:**

Mike: Basically, Your input from guitar, bass, other instrument is a clean linear signal. Our app corrupts that signal using a nonlinear curve, which changes the harmonic character of the signal. It’s a graphical distortion toolbox.

**Demo**

\*Open the app, **HAVE BASS VOLUME ALL THE WAY DOWN**

\*Switch off the effect

\*Talk about how, right now, it’s passing the clean bass signal straight through the iPad. It’s done with <3 ms latency through Core Audio. No matter what effect is chosen, the latency stays under 3 ms; this is crucial for actually using the app.

\*Play clean for a bit (dinky shit)

\*We made a “standard” nonlinear distortion effect for when you just want some grime in your signal. We call it “grit,” and it’s the default setting.

\*Play grit for a while (more metal)

\* At the bottom is the spectrum of the distortion. **Mike talk about what’s going on: harmonics.**

\* Talk about the graph and what it is: represents Vout / Vin. Most people will think it’s frequency, but that isn’t the right way to approach distortion. Right now, it’s fully linear.

\* As an example, a tape recorder has a curve that saturates at the right end. (Draw that bitch on the whiteboard.)

\* Switch to “draw” mode, show that it’s initially clean because linear doesn’t change your sound.

\*Once I do this – slide – we can hear the distortion.

\*This will work with any Core Audio-compatible audio interface. The one we have now cost $40 and you use it to connect your instrument (or mic, whatever) to the iPad.

In the future

\*Allow people to save their settings and activate them through the use of a Bluetooth footswitch.

\*We can add more effects easily and have them accessible via buttons.