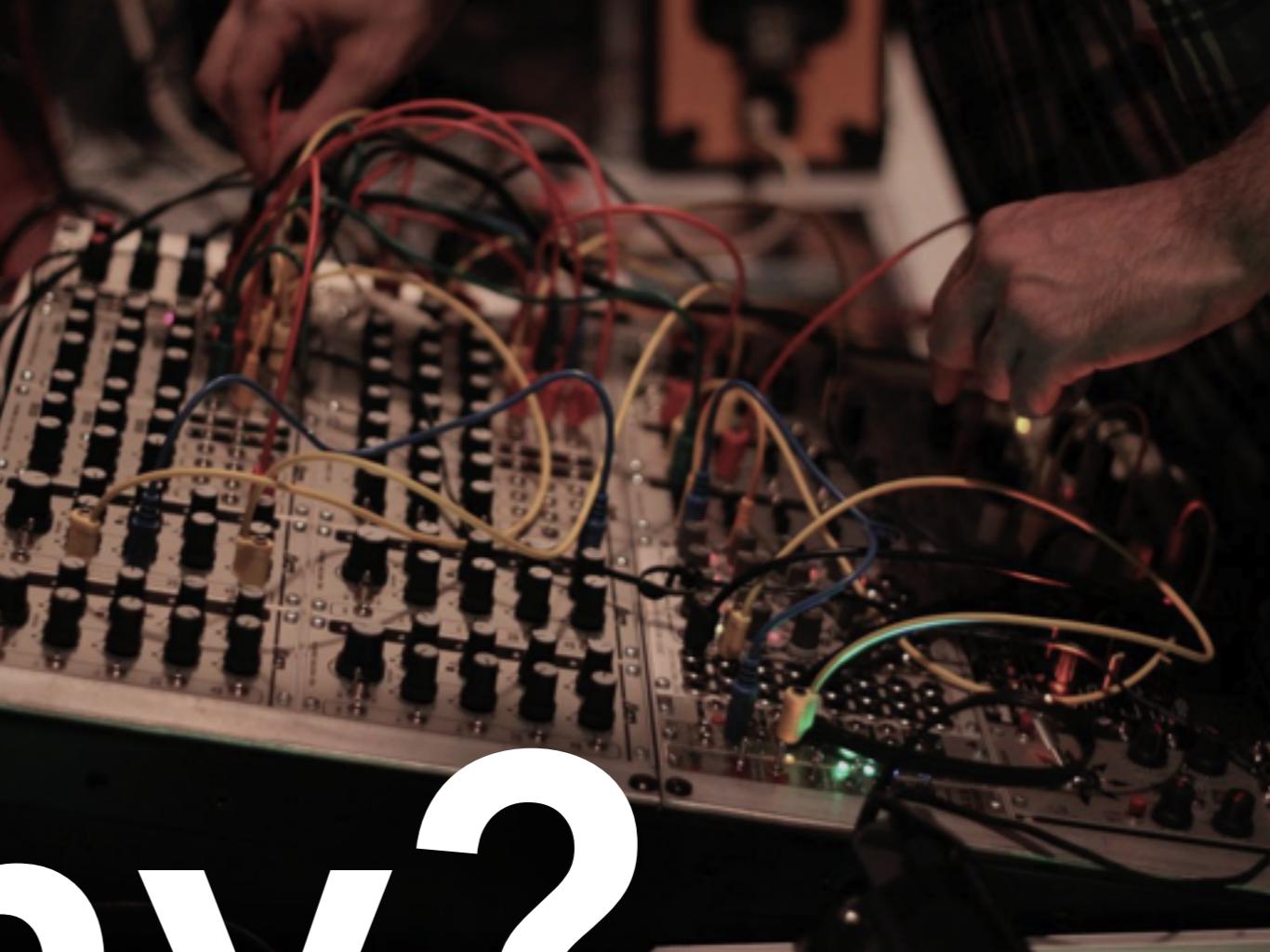
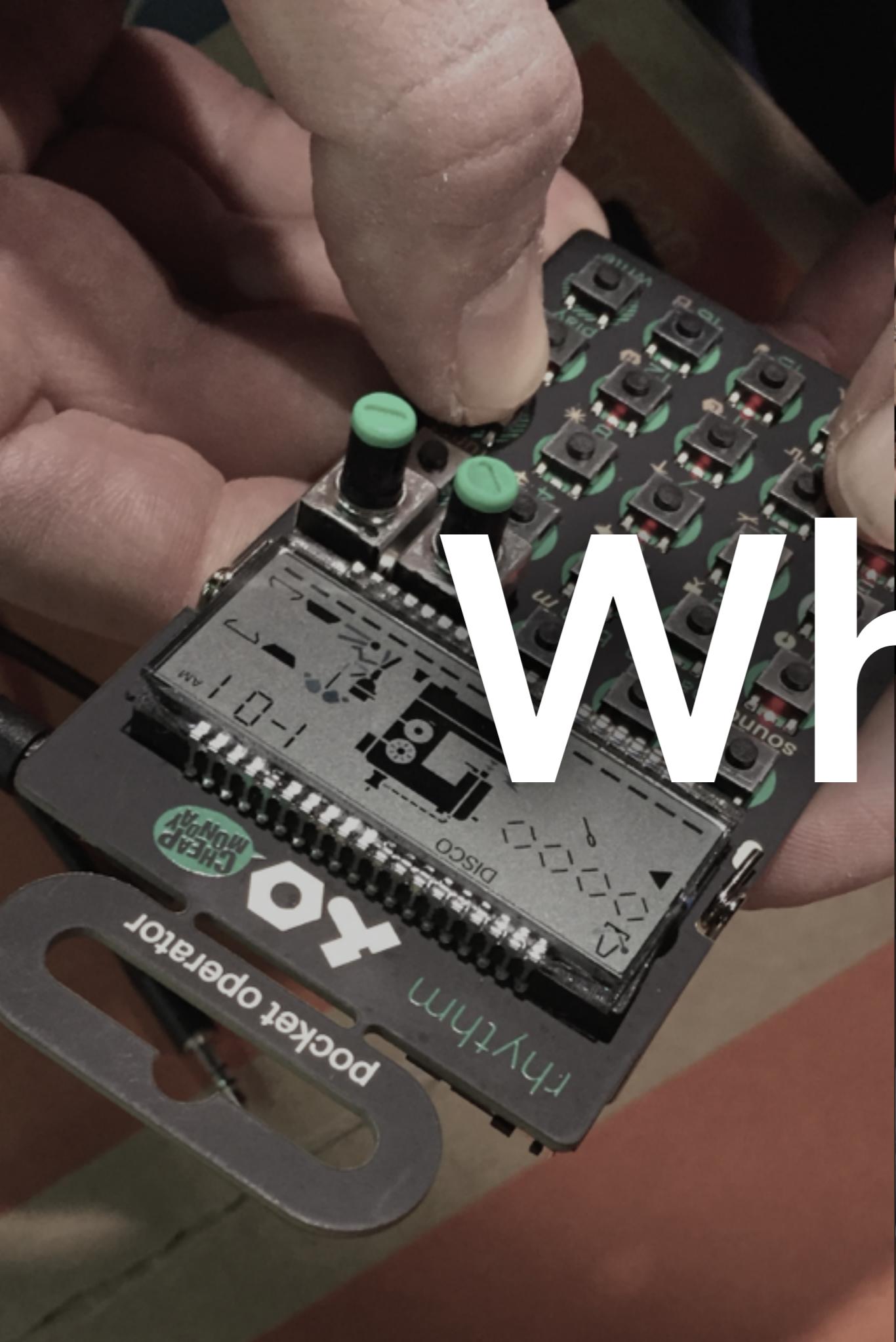


RYAN MCGILL

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SQUEEZING JUCE OUT OF YOUR  
LAPTOP, AND INTO THE REAL WORLD

# Why?



## MY PROJECT : THE SELECTOR

- ▶ <https://youtu.be/HCk0tZvfr2Q>
- ▶ Play audio samples
- ▶ MIDI controlled
- ▶ EASY
- ▶ Reliable





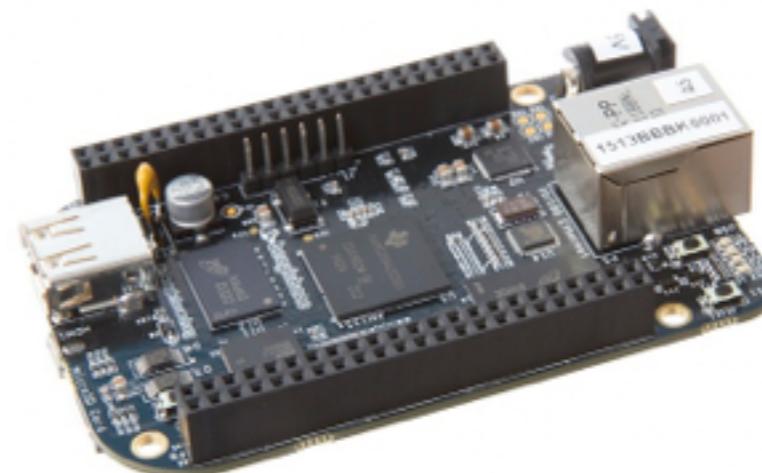
I KNOW JUCE...  
BUT WHATS  
“EMBEDDED”  
MEAN?

### "EMBEDDED" LINUX DEVELOPMENT

- ▶ ARM based chip, not X86
- ▶ Generally, less memory and processing power
- ▶ We are not talking about 'bare-metal' systems, we still have the luxury of an operating system



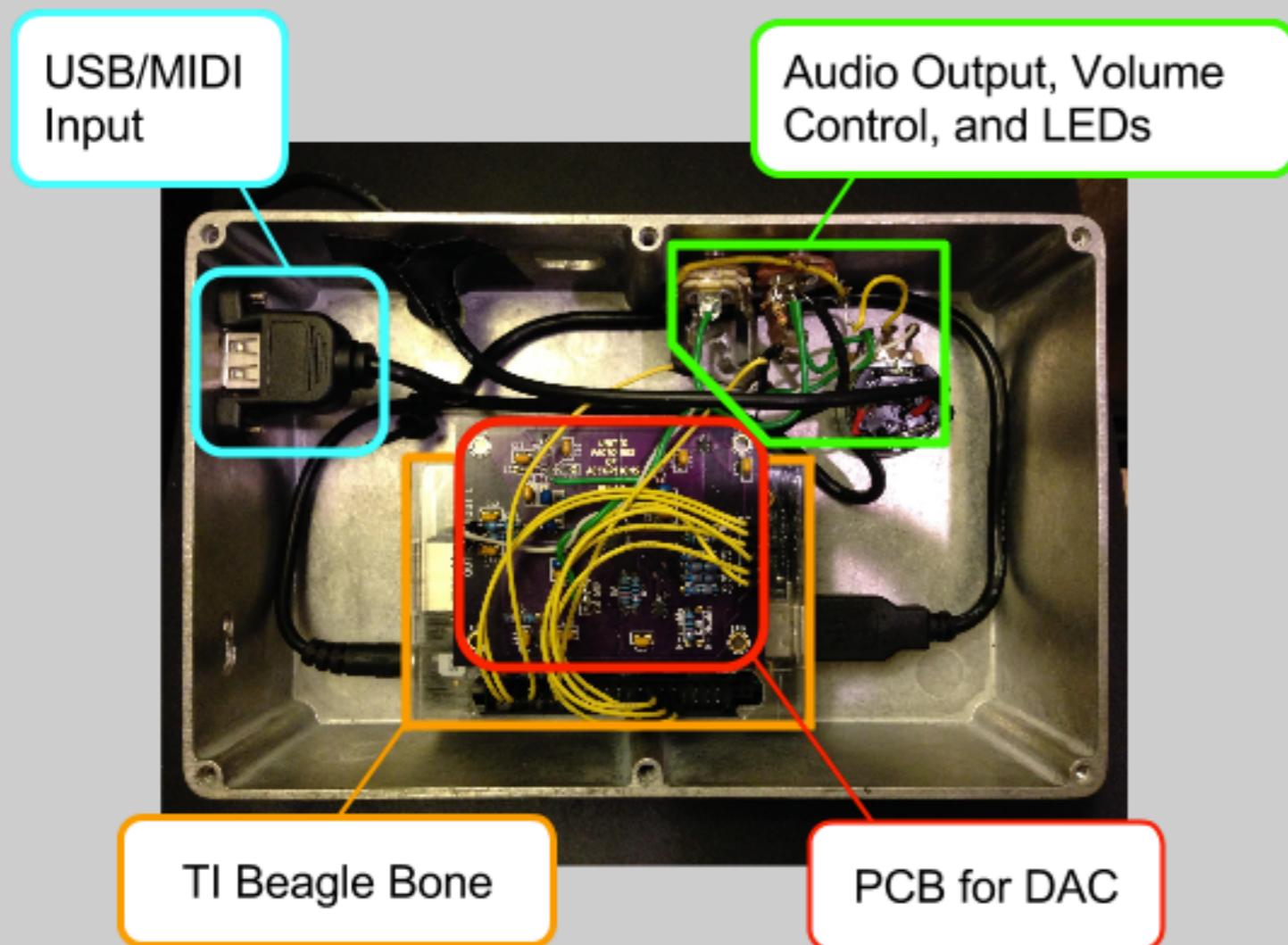
Raspberry Pi B+: ~£20



Beaglebone Black: ~£40

## HARDWARE

### Revision 1 - Build



## HARDWARE: CHOOSING AUDIO CARD

Good:  
on board audio



Better:  
USB Sound Card



Best:  
I2S DAC



~free  
uses PWM to create audio,  
about 12bit depth. Good  
for sound effects.

~£5  
44.1 khz / 16bit  
Can work for music  
projects.

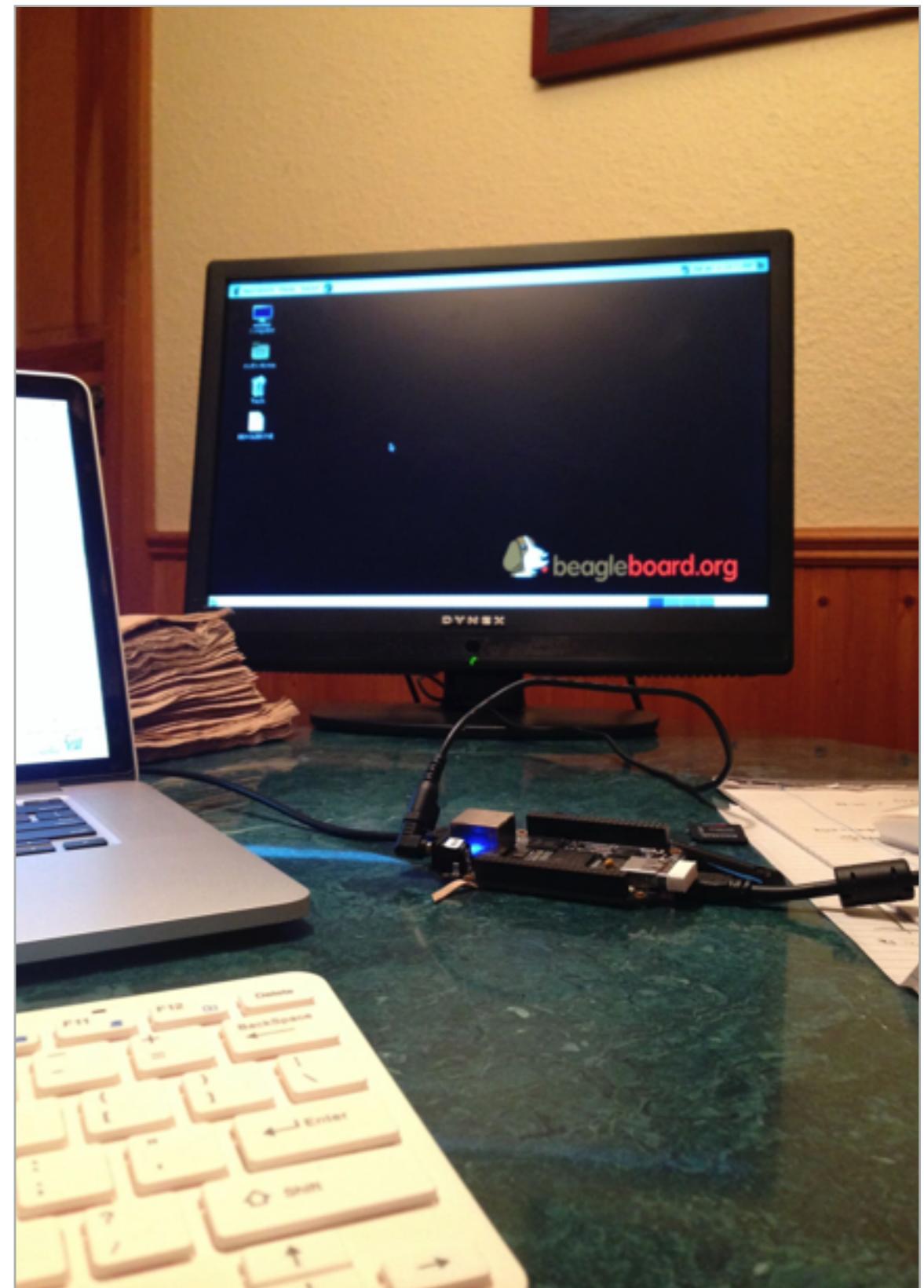
~£20-40  
up to 192khz / 32bit  
best audio option, can  
make your own!

# SQUEEZING JUCE OUT OF YOUR LAPTOP AND INTO THE REAL WORLD

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## SOFTWARE

- ▶ Standalone development is straightforward. Just like using a dedicated Linux machine.
- ▶ This can lead to slow compilation times, and non-ideal development environments.
- ▶ cross-compilation is more efficient, but remote debugging can be hard.
  - ▶ Eclipse IDE on Linux machine
  - ▶ Cloud9 IDE with Docker



# Questions?

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