

Programmers are way cooler
than musicians

Geert Bevin - XRebel Product Manager

Musicians narrate with sound

Programmers create new realities







Idle Rogue

you are the music while the music lasts

Guerilla Burlesque

Nominated for 2012 Avichoice Awards - Event Of The Year

Nominated for 2012 Dance Queens Awards - Show Of The Year

Nominated for 2012 Dance Queens Awards - Show Of The Year



Burning Man Festival



Burning Man Festival



<http://www.flytecase.be>
<http://www.flytecase.be>

<http://facebook.com/fly>
<http://facebook.com/fly>





http://idlerogue.org/jordan
a benefit for Jordan Reyne
Your donated tips for their performances will be forwarded to Jordan's paypal account
to help her find a home and recover her equipment, so she can go back to earning a
living as a working musician.
Please visit the website to purchase albums or donate directly:
<http://idlerogue.org/jordan>



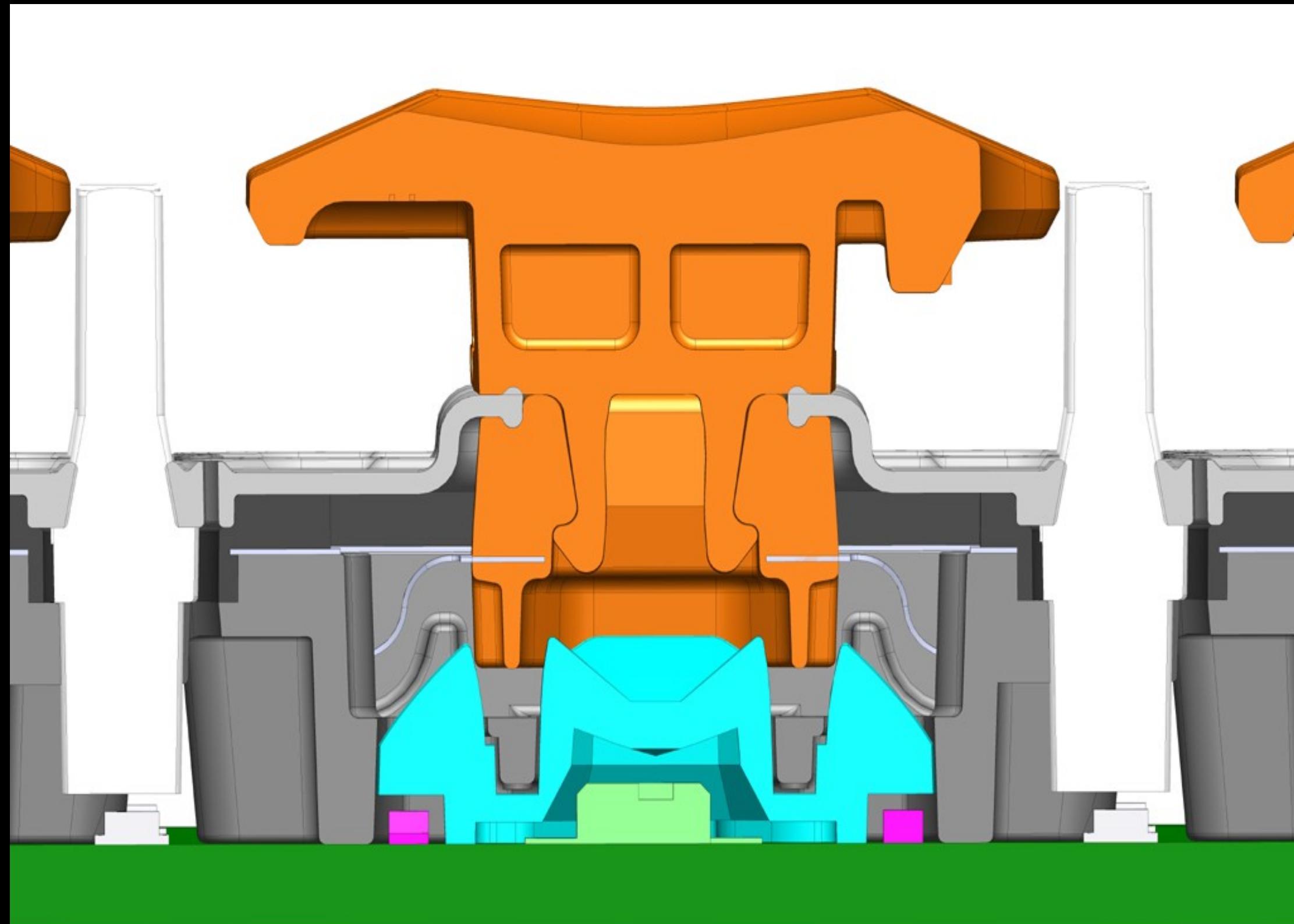
Eigenharp

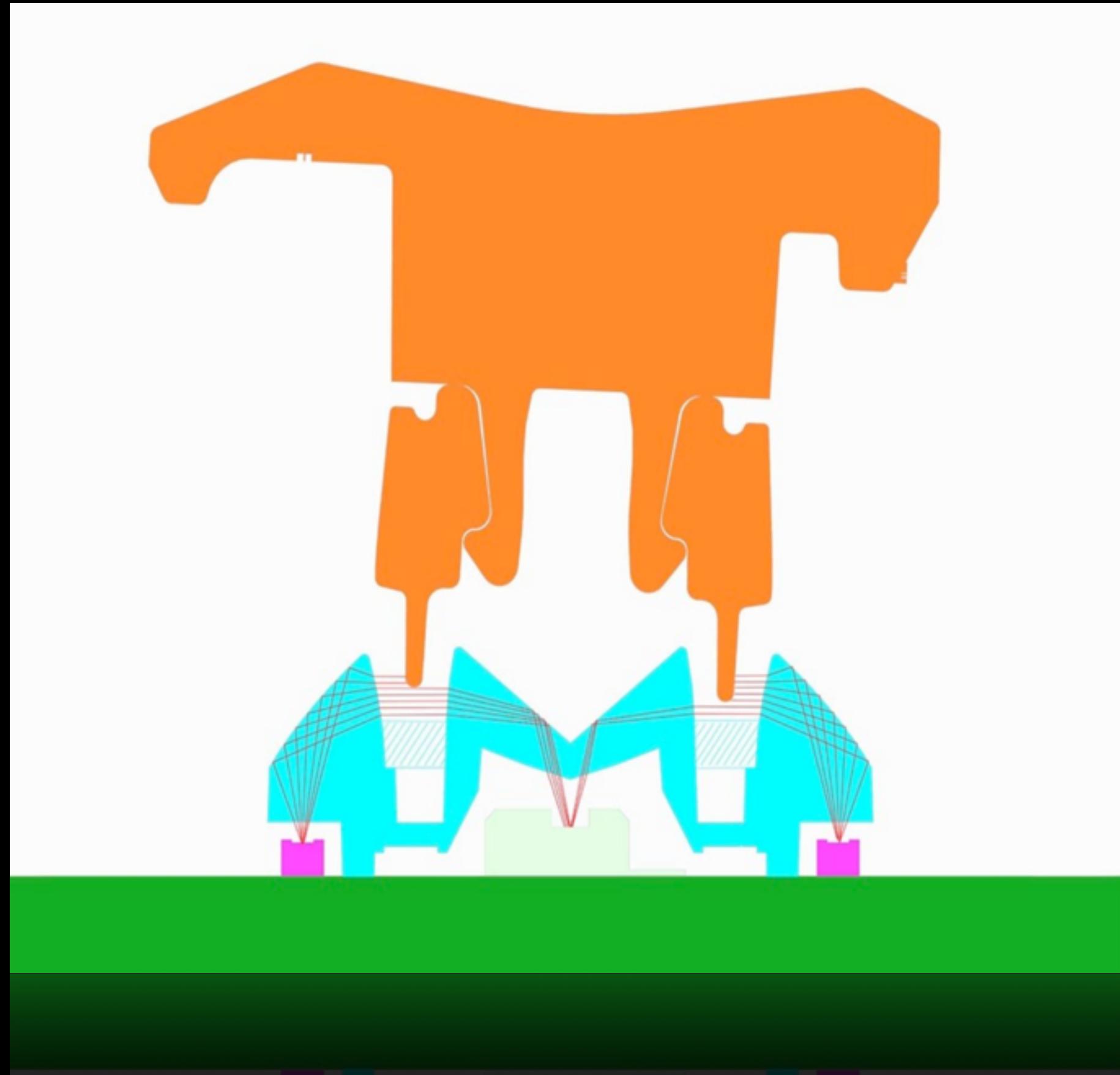
The most expressive electronic
instrument ever made

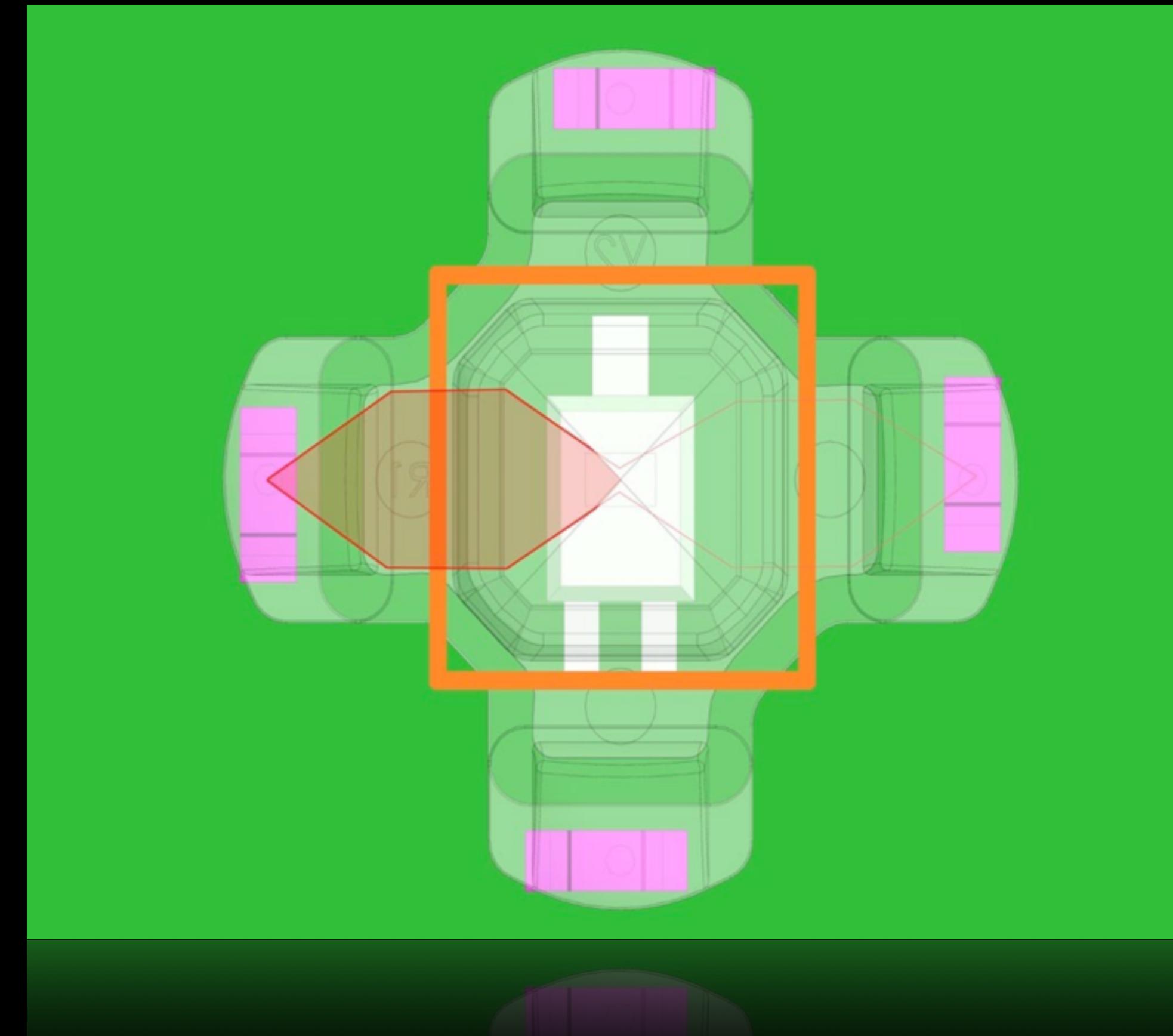
Expressiveness vs. Technology

Chaos vs. Correctness

The EigenKey







- 10 bits resolution over 0.9 mm of travel
- 400 nm of real resolution (width of a bacteria)
- Read at 500 μ s, a 6kHz rate per key (3 axis)
- Data rate is preserved from end to end

Data rate it preserved from end to end

That's like a retina screen
for 3D touch sensors

The blank canvas



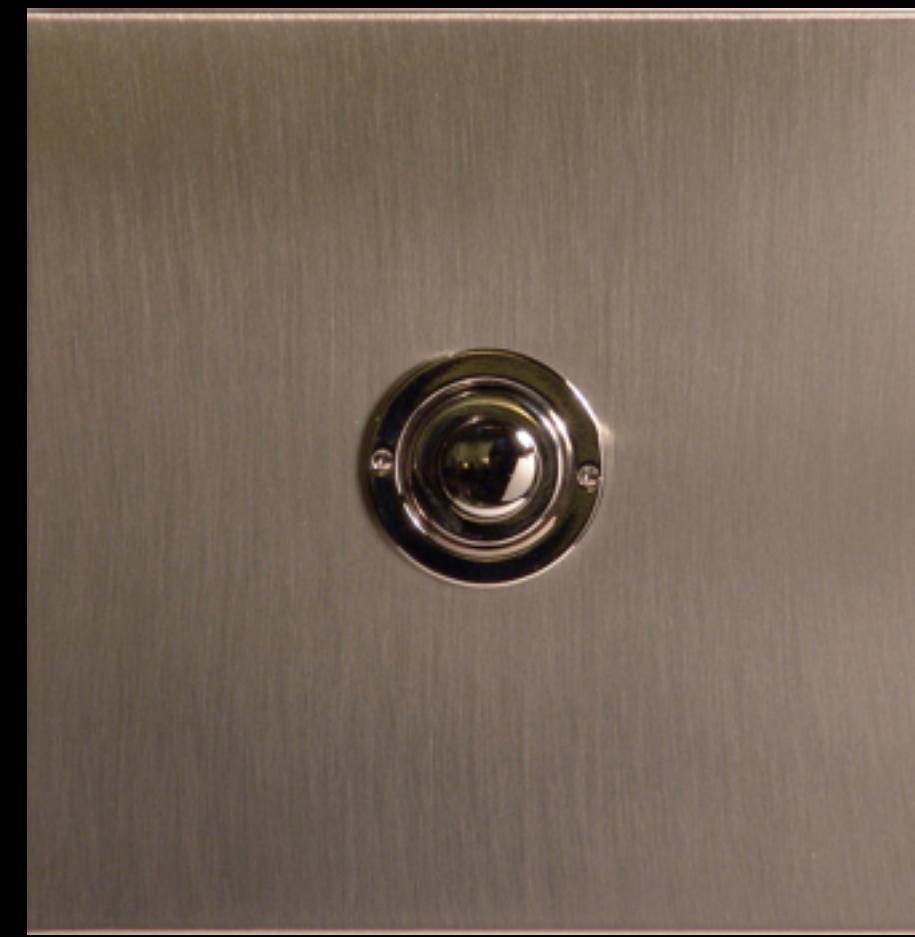


STEINWAY & SONS





Ceiling Light



Create possibilities
Provide new rules
Don't restrict

Multi-touch instruments

(or how different rules challenge protocols)



Per-note expression and synthesis

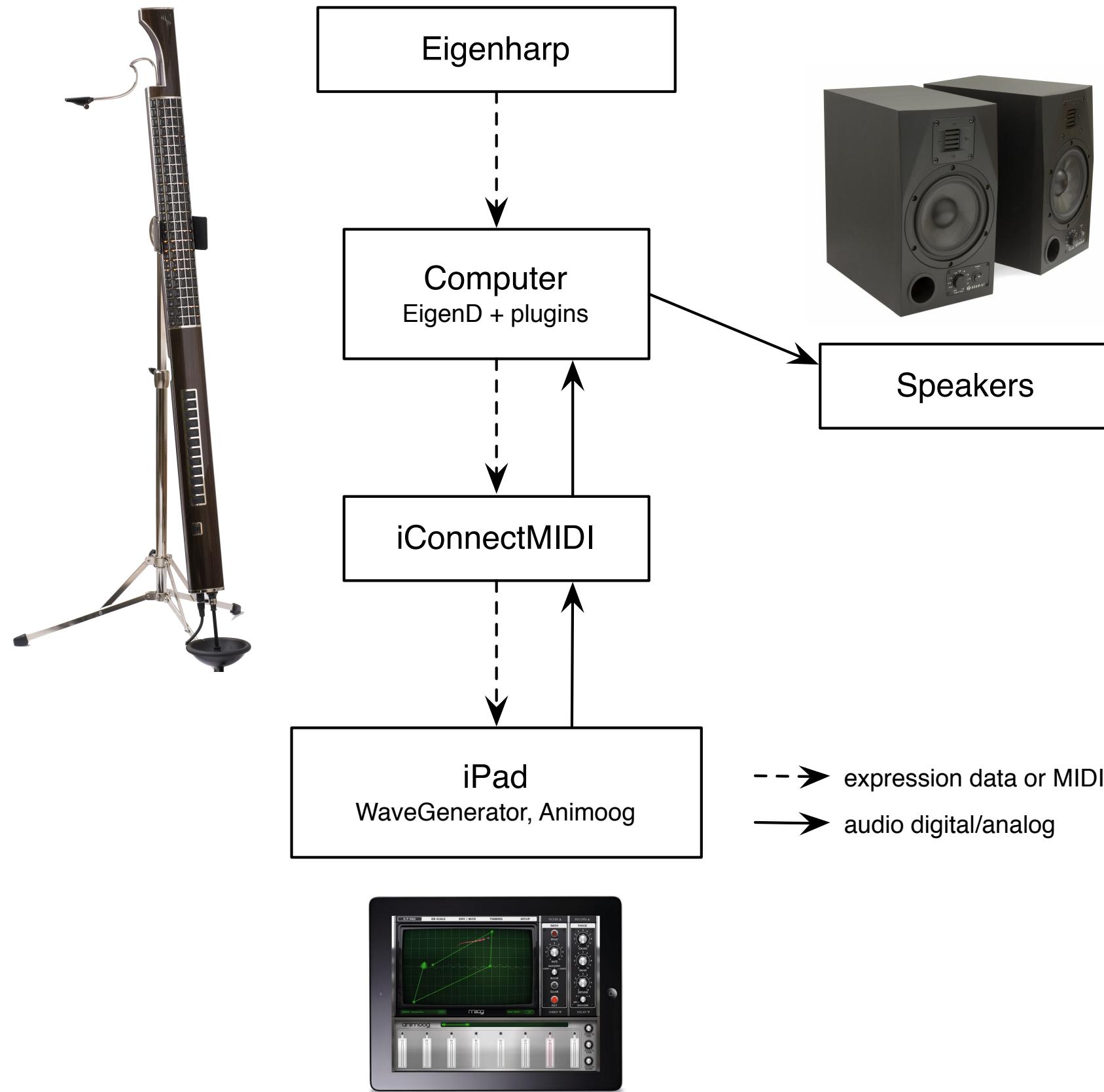
Traditional MIDI designed for
31.25 kBaud \sim 1 kHz of messages

Audio is independent from MIDI



High-speed USB MIDI ~ 400x faster
USB Audio Passthrough

One cable ...
and the iPad integrates perfectly



Instruments for all humans

OHMI

The One-Handed Musical Instrument Trust

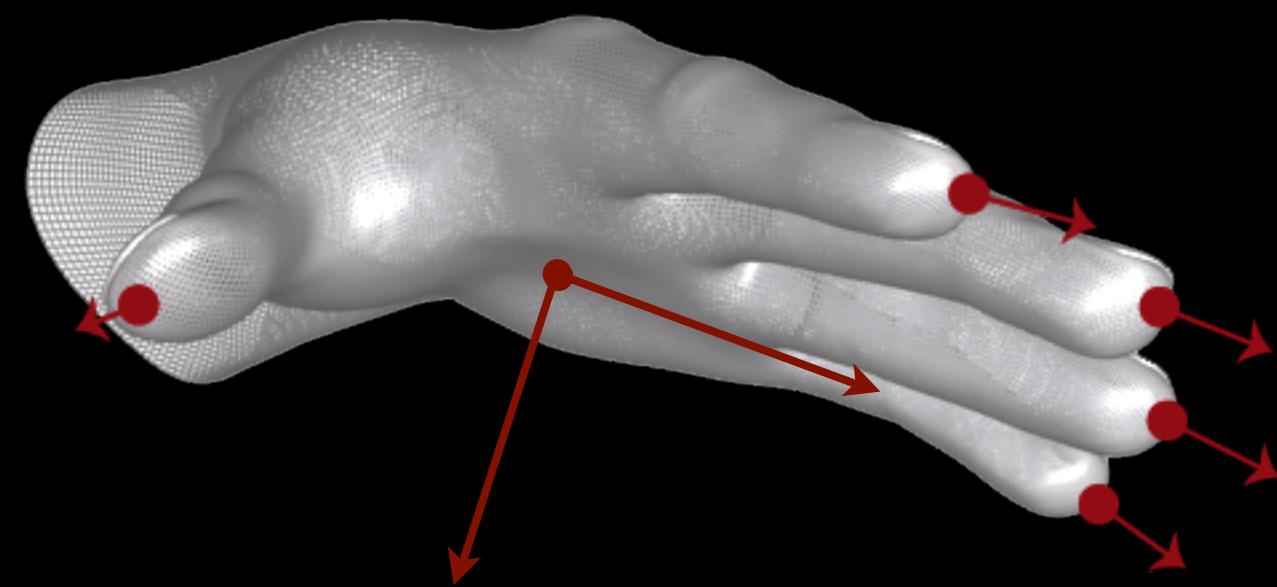


Human body interaction

Human body interface

Leap Motion Controller





- 10µm of real resolution
- 200x more accurate than Kinect
- Adaptive sample rates: 60-300 hz, defaults to 120 hz
- Data rate is preserved from end to end

Latency just below gesture threshold,
barely noticeable

New interaction rules

New user interface

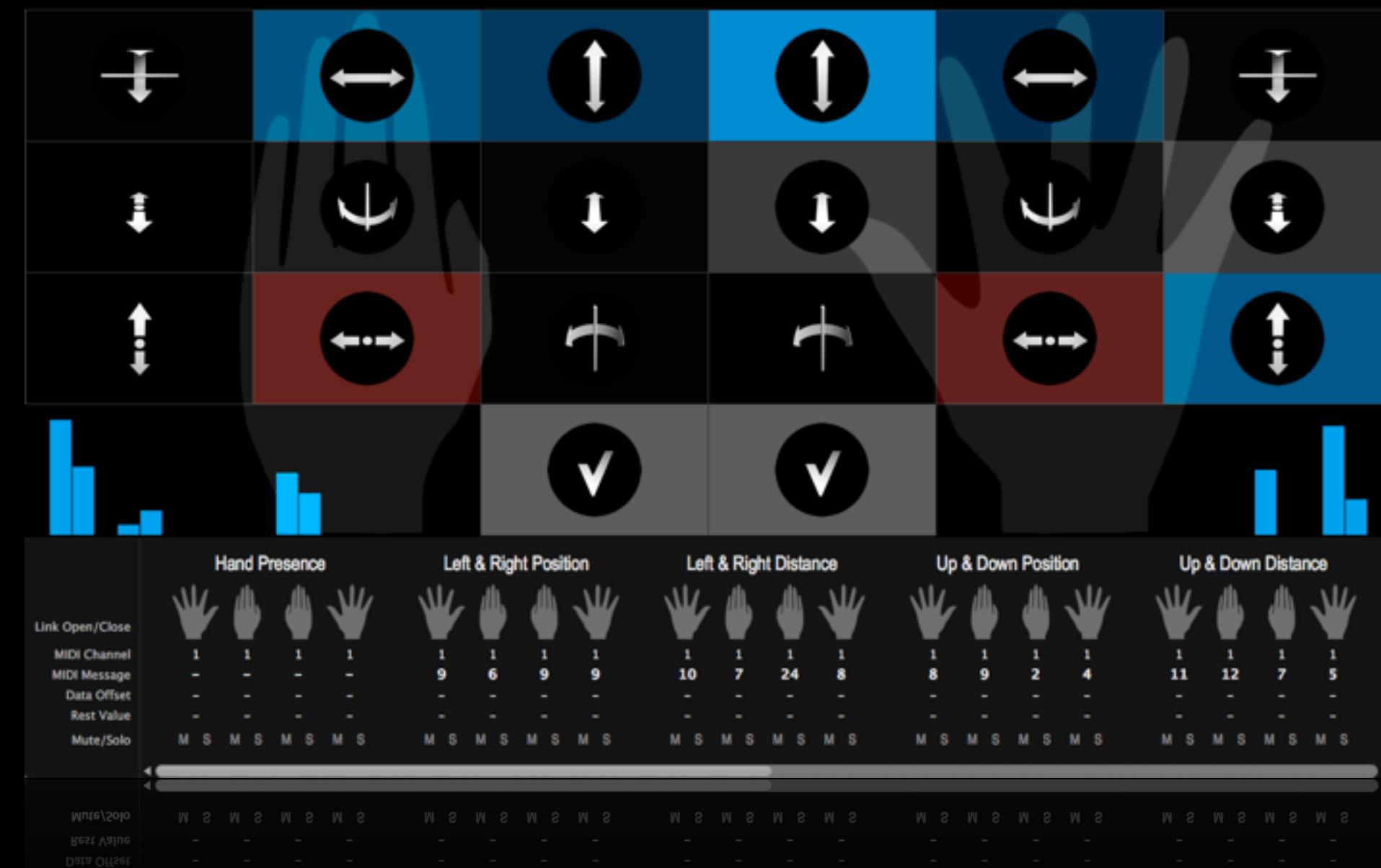
New protocols

10 thousand free developer units

Figure out the possibilities together



Multi-dimensional expression through hand gestures







Video game and operating system control through gestures

Skyrim

Trigger Mode

1 Finger	Swipe Up	Favorites
	Swipe Down	...
	Swipe Left	...
	Swipe Right	...
	Circle Left	...
	Circle Right	...
2 Fingers	Swipe Up	Quick skill tree
	Swipe Down	Quick map
	Swipe Left	Quick magic
	Swipe Right	Quick inventory
	Circle Left	...
	Circle Right	...
+ Fingers	Swipe Up	Open journal
	Swipe Down	Power/Dragon shout
	Swipe Left	...
	Swipe Right	...
	Circle Left	Left Click
	Circle Right	Right Click
Incline closed	Upward	...
	Downward	...
	Speed/Rest	50% (50%)
	Inward	...
	Outward	...
	Speed/Rest	50% (50%)
Rapid	Multi Taps	Switch Mode

Steering Mode

Move	Like	<input checked="" type="radio"/> Mouse	<input type="radio"/> Gamepad
	Upward	Walk forward	
	Downward	Walk backward	
	Speed/Rest	50% (50%)	15% (15%)
	Leftward	Strafe left	
	Rightward	Strafe right	
	Forward	Ready/Sheath weapon	
	Backward	...	
	Speed/Rest	50% (50%)	15% (15%)
Finger	Tap	Activate/use	
Thumb	Lift	...	
Hand	Opened	...	
	Closed	Left weapon/Block	
Incline	Flat	...	
	Upward	Walk/run	
	Downward	...	
	Speed/Rest	50% (50%)	60% (60%)
	Inward	...	
	Outward	Reposition	
	Speed/Rest	50% (50%)	60% (60%)
Rapid	Multi Taps	Switch Mode	

Steering Mode

Move	Like	<input type="radio"/> Mouse	<input checked="" type="radio"/> Gamepad
	Upward	Look up	
	Downward	Look down	
	Speed/Rest	50% (50%)	15% (15%)
	Leftward	Look left	
	Rightward	Look right	
	Forward	Ready/Sheath weapon	
	Backward	...	
	Speed/Rest	50% (50%)	15% (15%)
Finger	Tap	Jump	
Thumb	Lift	...	
Hand	Opened	...	
	Closed	Right weapon	
Incline	Flat	...	
	Upward	...	
	Downward	...	
	Speed/Rest	50% (50%)	60% (60%)
	Inward	...	
	Outward	Reposition	
	Speed/Rest	50% (50%)	60% (60%)
Rapid	Multi Taps	Switch Mode	

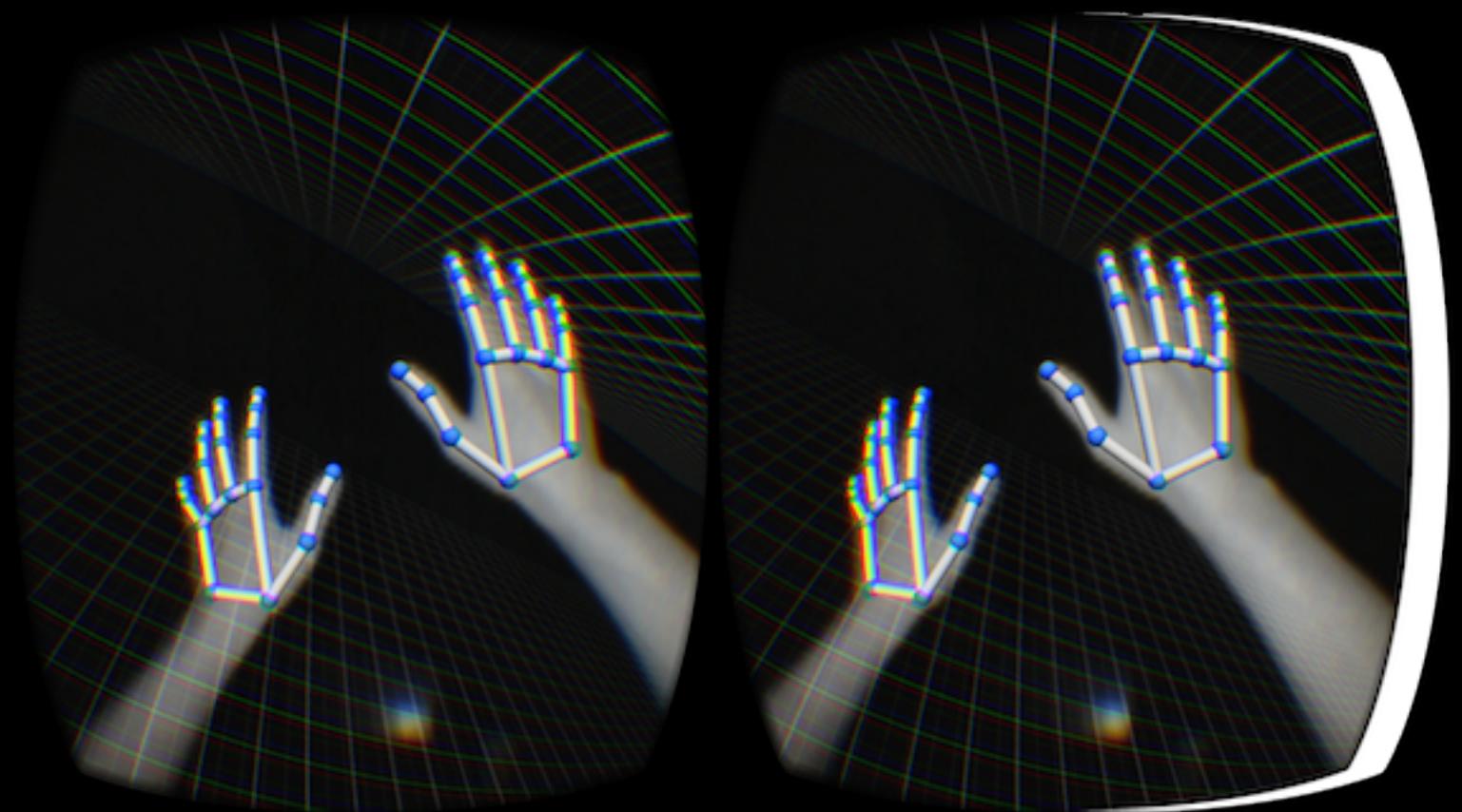
Trigger Mode

1 Finger	Swipe Up	Menu up
	Swipe Down	Menu down
	Swipe Left	Menu left
	Swipe Right	Menu right
	Circle Left	Menu back
	Circle Right	Menu confirm
2 Fingers	Swipe Up	...
	Swipe Down	...
	Swipe Left	...
	Swipe Right	...
	Circle Left	...
	Circle Right	...
+ Fingers	Swipe Up	Change view
	Swipe Down	...
	Swipe Left	...
	Swipe Right	...
	Circle Left	...
	Circle Right	...
Incline closed	Upward	...
	Downward	...
	Speed/Rest	50% (50%)
	Inward	...
	Outward	...
	Speed/Rest	50% (50%)
Rapid	Multi Taps	Switch Mode



Perfect for Virtual Reality





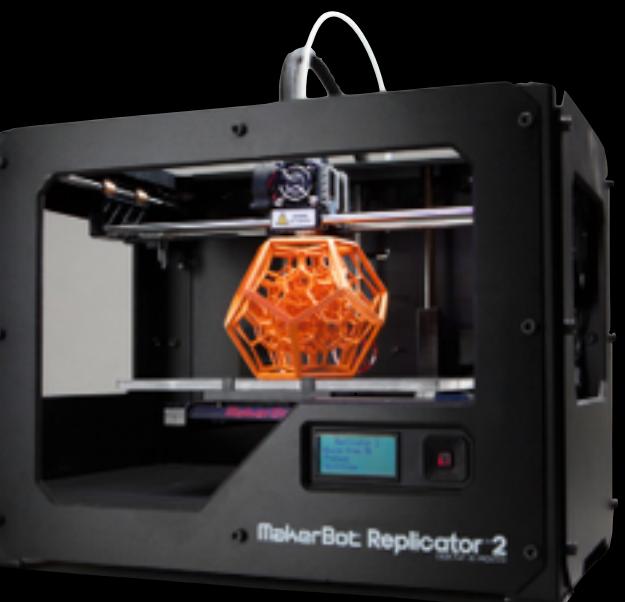
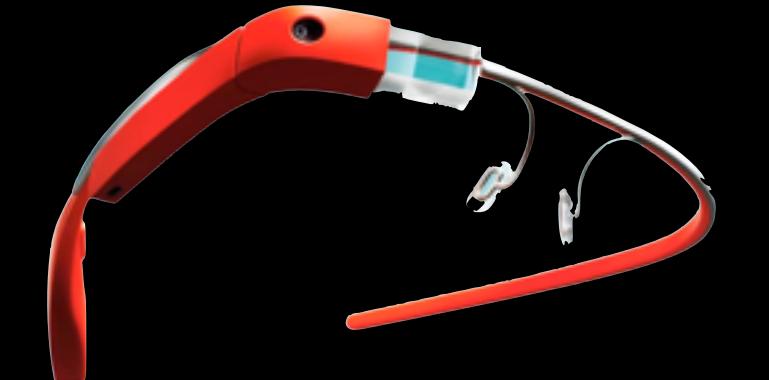
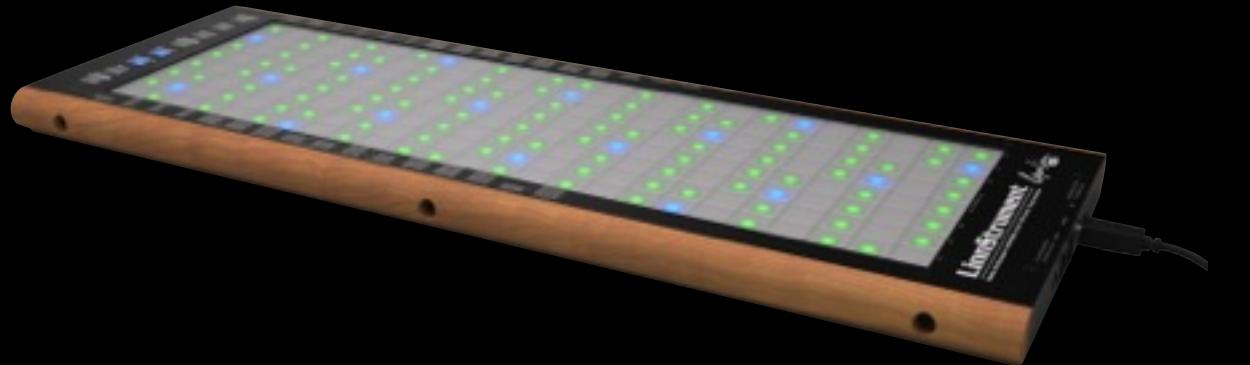
Think of medical applications





Leap Motion close to the Op site

So much is going on!





Don't be afraid
Experiment
Collaborate

Programmers
Put the soul in a machine

Programmers
Change the world