



Monolith 2.0

an installation for

Burning Man 2009

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Monolith 2.0

- Installation for Burning Man 2009
 - Theme: Evolution
- An 11-foot high Monolith
 - As in Arthur C. Clarke's Space Odyssey
 - It triggered jumps in the evolution of tools and technology
- The choice of tools in Monolith 2.0:
 - Side 1: two-person looper (complex technology)
 - Side 2: chalkboard (simple technology)

Construction

- Design (using Google Sketchup):



Construction

- In my backyard
- Steel base, designed to withstand 80mph winds
- Everything bolted together



Monolith 2.0 construction



Monolith 2.0 construction



Monolith 2.0 construction



Monolith 2.0 on the playa



Monolith 2.0 on the playa



Monolith 2.0 on the playa



Monolith 2.0 on the playa



Monolith 2.0 on the playa



Monolith 2.0 on the playa



Monolith 2.0 on Flickr



Feedback and Lessons Learned

- Both sides were well-used
- Burners always draw outside the box
- Message boards on the playa are useful
- People had lots of fun with the looper
 - At all hours of the day and night
 - Many came back repeatedly
 - Some people actually read labels
- Best feedback: non-musicians made music **and** realized that **they** were the ones making it

What's the controller part all about?

- Two independent controllers
- Each one is a 5-track looper - 1 track each for lead/bass/pads/drums/other
- The two loopers share tempo, scale, and transpositions, so they don't conflict musically
- Lots of labeled buttons to control:
 - Loop length, fading out
 - Chords, sounds, scales
 - Saving/loading loops
 - Audio effects (using one of the iGesture pads)

First controller prototype



Final controllers (never to be seen so clean again)



What's inside each controller

- M-Audio Trigger Finger
- Pertelian LCD display
- 2 Fingerworks iGesture pads
- 2 Korg Nanokeys
- USB hub



Buttons

- Originally was going to use arcade buttons
- Worldwide shortage of buttons due to release of Street Fighter IV
- Korg Nanokeys are cheap and come in black
- Convenient for labels
- Removed configuration buttons and covered in flexible acrylic for dust



Other Hardware

- Power consumption was a primary concern
- Asus Eeebox - Atom N270 running Windows XP, hosting a total of 15 USB devices
- Edirol UA-20 audio interface
- Sonic Impact (T-class) amplifier and two 6x9 speakers
- FM transmitter
- Lights - EL-wire outlining the monolith, and gooseneck LEDs
- 12 Volt deep-cycle batteries, swapped daily, charged with solar
- Battery 1: computer, amplifier, and both controllers (33 watts)
- Battery 2: EL-wire, lights, and FM transmitter

Software

- **Keykit**
 - Handles all input: 4 Nanokeys, 4 iGestures, 2 Trigger Fingers
 - MIDI looping
 - Controls the 2 LCD displays
- **Plogue Bidule**
 - VST hosting
 - Excellent routing features
- **Native Instruments**
 - Primarily FM8 (low CPU usage)
 - Battery 3 for drums

More info, pictures, video

- <http://timthompson.com>
- Search for 'monolith 2.0' on Flickr and YouTube.