

Development of a New Drumming Device

Background:

This March of 2014, I was approached by Konrad Meissner, Sessions Drummer, and design manager Ted Booth whom I knew from Smart Design, with the seed of an idea to create a metronome for drummers. You might ask the same thing I did, "Why do drummers need a metronome? And don't they already exist?" The answer to both questions was enough to agree to taken a fun and unique project that is in development and quickly becoming a reality.

Drummers, and specifically session drummers, are the heartbeat of any band. They are expected to keep impeccable timing. This turns out to be quite challenging in the heat of a live show and when you are first learning to play. Drummers rely on a metronome (which they call the "click track") to help them to get the beat in their head before the count off the tempo for the other players and singer. Once the song gets rolling they typically turn the click track off for the rest of the song. Before the next song starts they reset the click track to the next beat, turn on the click track, listen to it, get it in their head, count off the tempo, and so on, all concert long. Now imagine that you need to do this on a device that never considered the drum set and a live show ergonomics, logistics and stage presence. Most metronomes are small plastic gadgets that are designed for home use, They have little buttons, cheap LCD screens that you can't see in the dark, and were not designed for life on the road. Konrad always carries several with him when he is traveling with a band. He has found one brand that he modifies with duct tape and cardboard that allows him to whack it with his drum stick to turn it off and on, but he still needs to use his fingers to change any setting. This is problematic when he has sticks in your hands all the time. The answer was obvious: the drummer could use a specially designed device. We added Carla Diana to the team to handle the user experience and electronics, and I am responsible for the product design and the mechanical engineering.

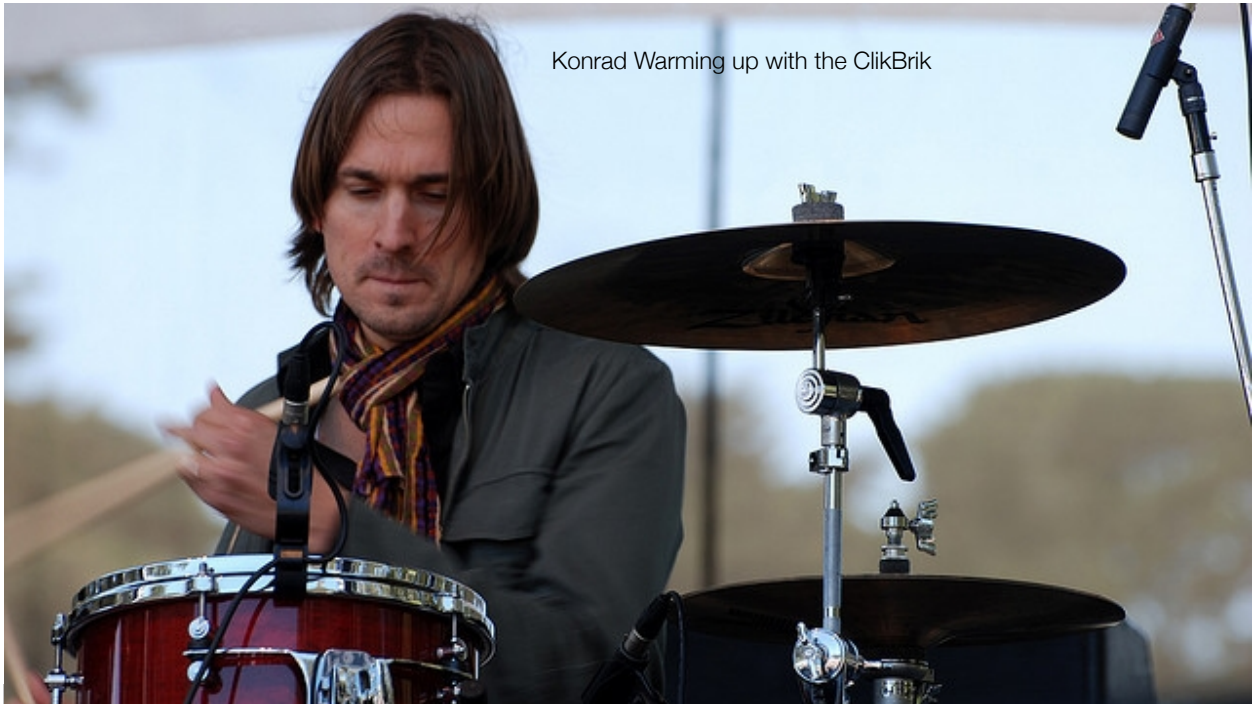
The KlikBrik was Born

“ What if there was a world just for drummers where everything they interacted with they could do with their drum sticks?”

- The Question



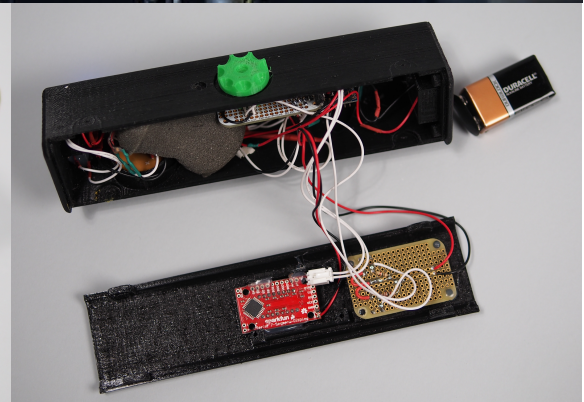
ClickBrik is a drummer-specific metronome that meets the needs of a drummer on the road. It is a durable rubber brick that you whack with your drumsticks to control, start and stop, etc., never needing to take your sticks out of your hand.



Konrad Warming up with the KlikBrik



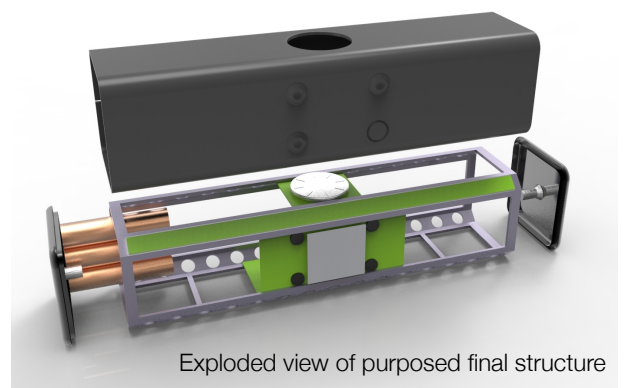
First working functional prototype



Features: The KlikBrik has been designed to be appropriate for a drummer on the road. It is covered in a durable shockproof silicone, and can be thrown in a gig bag with no fear of damage as the display and controls are completely sealed under the rubber; The LCD will be read through a selective thinning of the rubber; Units come in matte black to blend in and not call attention to itself and the unit can be hit anywhere to start and stop the click, giving a big sweet spot so that the drummer does not have to take their eye of the band. Simple large controls can be used with the sticks in hand and with out fiddling to get setting made quickly,

Current Status:

KlikBrik is in the prototyping stage. We are using an Arduino controller, miscellaneous electronic parts, and a piezoelectric sensor buried in the box as the switch for the stick controller. With these components, the unit has come to life. I have grown the prototype box on a 3D printer, for the functional prototypes. I am using a clamshell design, and when we move to production parts we will use a die cast aluminum structure similar to an Erector Set toy. This will be wrapped with a molded silicone rubber tube and sealed at each end with die cast end caps for strength and structure, making a sealed waterproof, shock proof enclosure. We expect to have a ruggedized prototype in January and 5 working prototypes later that month for user testing. A short video of the working interaction is included on the CD in the folder labeled "videos" or go to www.therealitybubble.com/work/klikbrik



Exploded view of purposed final structure