Onyx Ashanti needed an instrument that didn't exist.
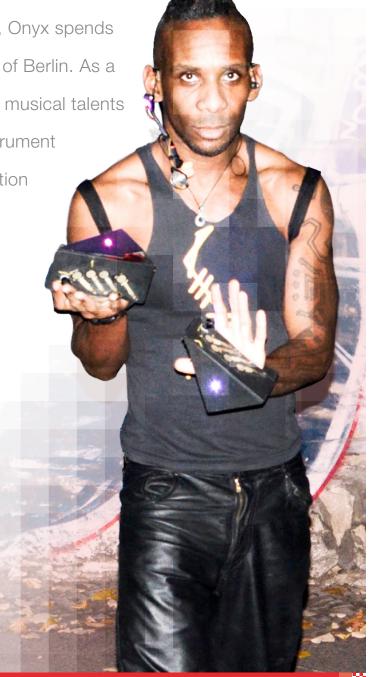
So he invented it.

Onyx Ashanti Onyx Ashanti is a full-time musician living in Berlin, Germany. When he's not working on his invention, Onyx spends nearly all of his time performing live on the streets of Berlin. As a former saxophone player, Onyx sought to take his musical talents to the next level. He is the creator of a unique instrument known as the "beatjazz system." Onyx's new creation blurs the lines between art and science, fusing electronics and music in new and exciting ways.

challenge

After years of playing the saxophone, and discovering the world of electronic music using a wind midi-controller, Onyx felt too constricted by existing instruments. In his own words, playing with these instruments "felt like playing with a neck brace on." He wanted a new instrument that would allow him to move freely and control the flow of the music not only with his breathing and finger movements, but also by the way he moved his arms and body. Such an instrument did not yet exist.

solution

Onyx decided that the only way to get the instrument he really wanted was to create it on his own. He started exploring the world of electronics. "I'm not a 'natural' with electronics as it relates to music," says Onyx. "It took me a week to even turn on my first synthesizer."

Ultimately, Onyx found SparkFun Electronics. He started by purchasing an Arduino, and began exploring the world of embedded electronics. Without any technical background, Onyx was able to learn how to fuse electronics with his music. He began exploring wireless communication, and then integrated accelerometers into his instrument to give him even more control over his unique sound. He now uses custom 3D-printed hand controllers and a variety of electronics to create a one-of-a-kind style of music known as beatjazz.

Onyx's hand controllers consist of Arduino Fios, XBee wireless communication modules, LEDs, capacitive touch sensors, accelerometers, a five-way joystick, and other basic components. He also incorporates the same components into a mouth control. By integrating the hand and mouth controls with a synthesizer, Onyx is able to create unique sounds and pitches through his breathing technique as well as the movement of his fingers, hands and arms.

> "Discovering the Arduino Fio and XBee just blew this project wide open – I didn't even know these things existed before."

result

Today, Onyx plays his unique instruments not only as a busker in Berlin, but at clubs and shows. He has given a speech at TEDx about his unique music solution and was a featured performer at Hack Berlin. SparkFun gave Onyx access to the parts and resources he needed to make his electronics idea into a reality. As his design improves, Onyx continues to innovate, not only in terms of his electronics, but his musicianship.

"The newfound freedom started to inspire new ideas about how to use the freedom as another expression vector," says Onyx. "It feels like what I would have actually wanted from the very first idea - I just didn't know I could."

Onyx has gone from a busking saxophonist to one of the most unique musicians around. He found a new way to express himself - and let his geek shine.