

SOCIAL BUTTERFLIES ISTHIS.GD or VIMEO.COM/97190435 (video)

Bugs are fascinating. So ubiquitous and industrious, and so necessary on a basic level. Electronics are sort of like that, too. So when British cellular network O2 commissioned London-based artist and geek collective **Is This Good?** to promote an electronics-recycling program, the team decided to take an entomological approach.

Marek Bereza, Chris Cairns, Matt Holloway, and Neil Mendoza are the makers behind Is This Good?, who built this interactive cellphone butterfly exhibit with the help of Dave Cranmer, Robin Jackson, Liat Wasserstrohm, Nadia Oh, Luke George, Jamie Durand, and Justin Pentecost.

The butterflies, created with recycled

phone parts and glittering with SIM card wings, can receive phone calls. Bereza, the software lead, explains that your phone number goes to a Raspberry Pi inside each butterfly plinth to generate art as unique to them as your phone is to you. The first digit determines color palette, the second determines speed, and so on. Bereza and Mendoza wrote in C++ with openFrameworks, which is designed for generative artwork and creative coding. “The great thing about openFrameworks,” says Bereza, “is that it’s very cross-platform, so the phones (Android and iOS) and the Raspberry Pi servers could all be written in the same way.”

Each Raspberry Pi controls four phones and animates motors and lights, keeping everything in sync. Bereza says the synchronization was done with “an extremely hacked up version of Most Pixels Ever library.” Along with the Pi, Arduinos with stepper drivers and transistors and other small electronics aid in bringing the bugs to life.

The team had to work on a deadline to build something robust enough to travel to various exhibits. However, Cairns points out that, “it was, of course, tremendously important to attach servo-controlled lasers to some of the butterflies. That real butterflies don’t have this feature seems like a terrible oversight.” —Sophia Smith

Michael Greensmith

