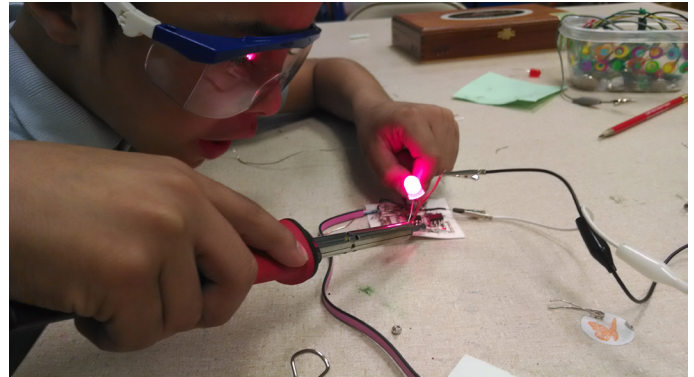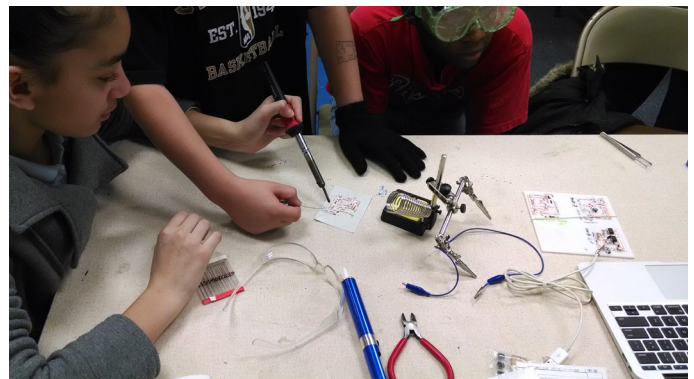# oneKey:

a low-cost MaKey MaKey derivative exploring how non-dominate youth can build educational hardware to learn about and tinker with interactivity.

Project Focus:

Developing a low-cost (<$2) and accessible derivative of the MaKey MaKey so that it can be sustainably deployed via workshops at various Philadelphia library branches. The aim is to introduce youth in underserved and low-income communities to making hardware they can tinker, play, and make with. It's addressing the question "Can I take this home?" and the inability for youth to take projects using digital media tools such as the MaKey MaKey home. This has been a recurring issue as our youth continue to exhibit their projects and we grow our programming from 5 library branches to all 52.

In deploying the oneKey we've seen it hacked and shared with others by our youth aged 7 to 14. This proved that informal education environments can make their own educational hardware via desktop manufacturing and production methods. This comes at a time when arts and technology education is almost nonexistent in our public school system.
The oneKey is created using a vinyl cutter and 3M copper tape to make a low-barrier and low-cost method for creating circuits. The process of making It allows participants to learn how usb human interface devices work while honing basic soldering skills and learning about electronic components.

This summer we intend on deploying the oneKey on a larger scale. To date only a few small batches have been created in workshops and afterschool programs. There has also been an interest in finding other open sourced interactive hardware that can be created using similar production methods.

Also, after presenting at HASTAC 2014(Maker Jawn: Creating accessible hardware to grow voices, nurture skills, and bring youth together) a cross-hemispheric collaboration with makers in the Fab Lab Lima community began. This collaboration is exploring how to create similar low-barrier hardware for use in their urban and future rural Fab Labs as well as share knowledge and technical skills. Peru is an interesting context to explore low-cost hardware as component costs are much higher and the need for projects that make a lasting impression on participants is needed.

https://github.com/makerjawn/jawnware

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