PiScan

An open-source version of the Amazon Dash Button using a Raspberry Pi

May 30, 2015

PiScan is an open-source version of the Amazon Dash Button using a Raspberry Pi and an off the shelf usb barcode scanner.

Before Amazon's announcement (which, because of the timing on March 31, led some people to think erroneously that it was an April Fools Joke), I had been working on an open-source barcode scanner.

I was inspired by github user danslimmon's oscar project.

Rather than be content with an SMS shopping list, I thought I could map the scan results to an online vendor's API, to enable scan-to-shop, a.k.a., lazy man's shopping.

> PiScan Gallery on Imgur

Unlike the Dash button, you can pick any product, it would give you an opportunity to say no based on the price before ordering.

So far, the only vendor is Amazon (ironically enough) but I'm keen to add more, especially since Tesco in both the UK and Korea supposedly offer similar APIs, and there are probably other vendors out there that I'm not aware of.

Contributing to Open Product Data

Somewhat surprisingly, there is no good source of free barcode data.

The Open Product Data (POD) project is a promising start, but its catalog is limited, and they haven't published an update since early 2014.

Using PiScan is way of Contributing your individual scans and inputs back to POD, through another open data project I'm running at Saruzai.com.

But that's optional, you can use PiScan and just run your own server instead, which keeps your scanning history and collections private.

Build Your Own

The software is available on github: https://github.com/Banrai/PiScan

The hardware is relatively straight-forward, with just a few things to buy, and no soldering or wiring required.

This parts list has two links for each item, the first is an affiliate link, which is a small way of supporting me to continue this work, along with a non-affiliate version underneath.

- Raspberry Pi Model B
  http://www.amazon.com/gp/product/B009SQQF9C

- USB Laser Scan Barcode Scanner
  http://www.amazon.com/gp/product/B00GPH83VK

- Micro SDHC with Adapter 16GB
  http://www.amazon.com/gp/product/B00IVPU7KE

- USB 2.0 Data Drive 8GB
  http://www.amazon.com/gp/product/B00DYQYJ3Q

- Raspberry Pi Wifi Dongle Adapter (optional: the Pi runs a webserver, which I connect to over my local network)
  http://www.amazon.com/gp/product/B00FWMEFES

- Raspberry Pi B+ Power Supply (5v 2A) – USA (optional: I like a dedicated power supply since I've mounted mine to the wall)
  http://www.amazon.com/gp/product/B00LSEOTYK