iPhone13 Finder
By Eric Tada
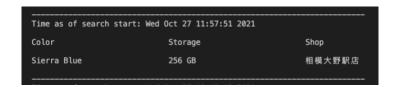
Technical Notes (Nov 2021)

Motivation

As I decided to change from Google Pixel 4 to the new iPhone 13 Pro Max, I realized that Rakuten Mobile had a great deal for those who want to renew their phones every 2 years. Also, their data plan would be even cheaper than my previous one from a Japanese "low-cost carrier".

Such attractive deal, combined with an unprecedented semiconductor crisis, made it really difficult to find available models in Bic Camera, the only major electronics shop that has a Rakuten Mobile booth. 1 month after reserving in the beginning of October, I got a call saying my iPhone would arrive only by the end of November or mid-December! This is because the reservation system is inefficient, it will only allow you to get the exact same color and storage, at the exact same shop you reserved, not allowing the smallest degree of flexibility!

However, as I checked Bic Camera website, I saw that some shops had one model of iPhone 13 Pro Max at a specific color and storage available. At first, it was available at a shop far from

home, but I thought that if I kept monitoring, something would come up near my place. Then, I spent my next days checking every 10 minutes all the shops in the [website](#), one per one.

I thought that this tedious task could be automatized for better efficiency in finding a suitable model at a shop near me. Then, I decided to write this scraper code in Python! After running for 2 days, I found out that a shop within 1 hour had a Sierra Blue with 256 GB available. I called them immediately and reserved a visit to the shop, where I got my new iPhone 13 Pro Max on the same day!

Thanks to my code, I was able to avoid a huge amount of time spent going thru the stocks of iPhones, and could get my phone in shorter time than those who used the conventional reservation system. Then I thought: what if I share to people that there is a more efficient way for you to get what you desire?

I would like to present you my open-source code that helped me to fulfill my dream! In addition, I added options to search for all models, not only the Pro Max. Please try compiling and running my Python code, and feel free to distribute (please do not forget to give me credits ☺)

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Scope of search

Mobile carrier

Only **Rakuten Mobile** iPhone 13 stock is scraped.

Shops

Only **Bic Camera shops in Kanto region that have a Rakuten Mobile booth** are scraped. If you live in another region and would like to add your shop, please feel free to change the code (good Python practice!), or contact the developer.

The list of scraped shops is as below:

SHOP NAME (JAPANESE)	SHOP NAME (ROMAN)
有楽町店	Yurakucho st.
池袋本店	Ikebukuro st. main shop
赤坂見附駅店	Akasaka-Mitsuke st.
新宿西口店	Shinjuku st. West exit
ビックロ 新宿東口店	Bicqlo Shinjuku st. East exit
新宿東口駅前店	Shinjuku st. East exit
渋谷東口店別館	Shibuya st. East exit (annex)
AKIBA	Akiba (Akihabara st.)
立川店	Tachikawa st.
JR 八王子駅店	JR Hachiko st.
京王調布店	Keio Chofu st.
町田店	Machida st.
ラゾーナ川崎店	Lazona Kawasaki
横浜西口店	Yokohama st. West exit
新横浜店	Shin-Yokohama st.
イトーヨーカドーたまプラーザ店	Ito Yokado Tama Plaza st.
藤沢店	Fujisawa st.
相模大野駅店	Sagami-Ono st.
柏店	Kashiwa st.
船橋東武店	Funabashi st. Tobu
大宮西口そごう店	Omiya st. West exit Sogo
所沢駅店	Tokorozawa st.
高崎東口店	Takasaki st. East exit
水戸駅店	Mito st.

You can find more details on the shops at the link.

Phone model, color, and storage

The program allows you to look for **iPhone 13 mini**, **iPhone 13**, **iPhone 13 Pro**, and **iPhone 13 Pro Max**. At the beginning, you are prompted on whether to search for each model.

Colors are available as below:

- iPhone 13 mini and iPhone 13: **(PRODUCT) RED®**, **Starlight**, **Midnight**, **Blue**, **Pink**
- iPhone 13 Pro and iPhone 13 Pro Max: **Graphite**, **Gold**, **Silver**, **Sierra Blue**

Storage is available as below:

- iPhone 13 mini and iPhone 13: **128 GB**, **256 GB**, **512 GB**
- iPhone 13 Pro and iPhone 13 Pro Max: **128 GB**, **256 GB**, **512 GB**, **1 TB**

How to use and get your iPhone

1) Use your favorite Python compiler to compile iphone_search.py, and run.
2) The program will ask you whether to search for each of the 4 models. Type 'y' or 'Y' then Enter if you want it to be searched; type anything else then Enter if you do not want it to be searched.
3) The program will run indefinitely scraping Bic Camera's website. It will print in the console the models available.
4) If you are interested in the model, color, and storage, and can visit the shop that contains it, call the shop immediately and ask them to confirm if they really have it in stock (sometimes the info in the website is outdated). If they confirm, ask them to reserve it for you and a time to visit them. Done, your iPhone is guaranteed!

IMPORTANT NOTES

- Bic Camera may (will) change their website structure and/or remove it without prior notice, deeming the code useless. Functionality confirmed on Nov. 21st 2021.
- It takes about 5 min to scrape all the shops. After finishing, it will print the start time of the next search. Bic Camera updates their website every 10 min, except during late night.
- Bic Camera website has a very archaic bot detector that will request a CAPTCHA if many accesses are detected in a short period of time, however, after waiting 1 min and reloading, the

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CAPTCHA request won't come up anymore. For that, the code has a try/catch routine to identify whether the website requested CAPTCHA and, if so, it waits 1 min and retries. Therefore, please allow some time if you find the program irresponsive.

- In cases where there is no phone in stock, the list will be blank. This is not an error of the code.

Contact

If you have any doubts about this code, please do not hesitate to send Eric Tada an email:

erictada@gmail.com

I will be more than glad to hear your feedback!