

Jonathan Maroun & Brian Sotto

# Under The Screen

Do you know how or where they made the iPhone?  
Do you know what or who makes the iPhone?



How is  
my  
iPhone  
made?

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*Jonathan Maroun & Brian Sotto*

The Apple iPhone is the most used cell phone till this day, and pretty much everyone you know uses it. From your mother, to your father, to your own siblings, even your grandparents have used one before. But do you ever wonder how it's made? Or who it is made by? In this article, these questions will be answered.

Key suppliers for Apple iPhone production are Foxconn, Wistron and Pegatron. However, the main manufacturer is Foxconn, formerly known as Hon Hai Precision Industry: Foxconn (HNHPF). Hon Hai was founded in 1974 by company founder and former chairman, Terry Gou. The company transformed southern China into a global electronic manufacturing powerhouse. It now employs over a million workers in mainland China. Foxconn is a contract manufacturer which formed a relationship with Apple in 2000, Apple benefited from this relation as it meant a lower cost of manufacturing devices. Like many other contract manufacturers, Foxconn hasn't met high safety standards expected of the brand



while keeping costs low. It has drawn attention from labor disturbances, worker suicides and accidents. The company imposes overtime and pressure on workers. Addressing these issues, Gou has raised wages and pledged to create a better work environment.

There are many individual components in an iPhone and it is impossible to list every product found in it. It is very difficult to know where those components are made as one company can build the same component as other factories. However, the components manufactured all around the world are sent to companies to assemble iPhones, and other Apple products. Those companies are Foxconn and Pegatron, which are based in Taiwan. Foxconn assembles the majority of Apple's iPhones in China. Foxconn has addressed hiring interns as young as 14 in a Chinese factory, breaching national law. "Our investigation has shown that the interns in question, who ranged in age from 14 to 16, had worked in that campus for approximately three weeks," which made

up only 2.7 percent of its workforce in China. Foxconn has factories in countries across the world which include Thailand, Malaysia, the Czech Republic, South Korea, Singapore, and the Philippines.

Apple uses a number of materials to produce their products, especially the iPhone, gathering materials from all over the world. An iPhone starts at an earlier stage before the assembly line in China, in a much deeper part of the earth. 90% of the earth's rare minerals are combined into essential iPhone parts which are found in China, mostly in Mongolia. Lanthanides, scandium, yttrium and some others make the iPhone "light, bright and loud." Most notably, materials such as aluminum which are lightweight and durable. Iron which builds the microphone and speakers, lithium which keeps the iPhone battery running. Gold which conducts electricity and is resistant against corrosion, copper which also conducts electricity and heat. iPhone color screen,

speakers, glass polishing, vibration unit and circuitry come from a mix of these minerals. Apple's involvement in environmental issues will reduce pollution through the use of non-toxic raw materials and their products being manufactured with recycled materials.

Apple buys many components for their iPhones, from memory chips, modems, camera modules, microphones and the touch-screen controllers. These components can be from LG, Samsung or Sharp and myriad other commodity parts. The process of manufacturing an Apple iPhone is buying the products from different manufacturers, then assembling them in factories. Foxconn assembles iPhones in China and has installed robots for the first time to meet its iPhone production quotas and cut production costs, increasing unemployment. Factories in Zhengzhou cover 2.2 square miles and can employ up to 350,000 workers. Their production is called final assembly, testing and packaging (F.A.T.P.). There are over 94

production lines in the Zhengzhou facility, taking over 400 steps to assemble one iPhone, this includes polishing, soldering, drilling and fitting screws. The factory is able to produce 500,000 iPhones a day (roughly 350 a minute).

IPhones are everywhere in the world today, iPhones are the most popular cell phone in the world and almost everyone owns one. They are a symbol of evolution which most people know nothing about. So, next time you hold your iPhone, think about how, where, who and what makes an Apple iPhone.



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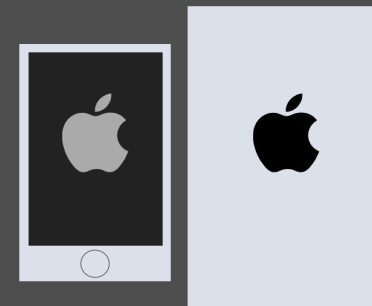
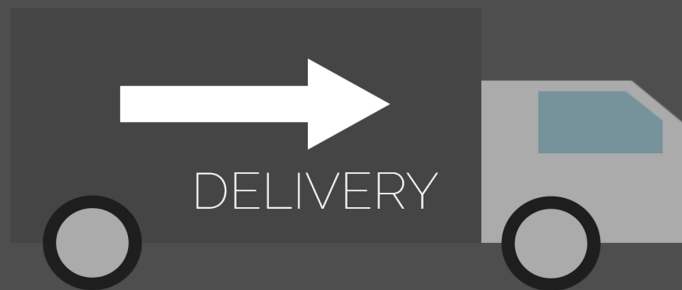
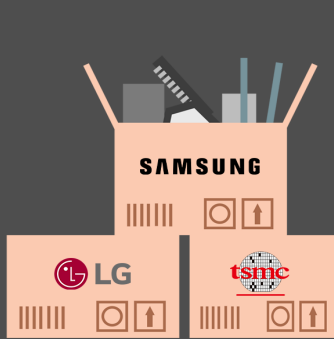
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# iPhone Materials

- 31.1 g Aluminium
- 19.9 g Carbon
- 18.7 g Oxygen
- 18.6 g Iron
- 8.1 g Silicon
- 7.8 g Copper
- 6.6 g Cobalt
- 5.5 g Hydrogen
- 4.9 g Chrome
- 4.9 g Others
- 2.7 g Nickel

