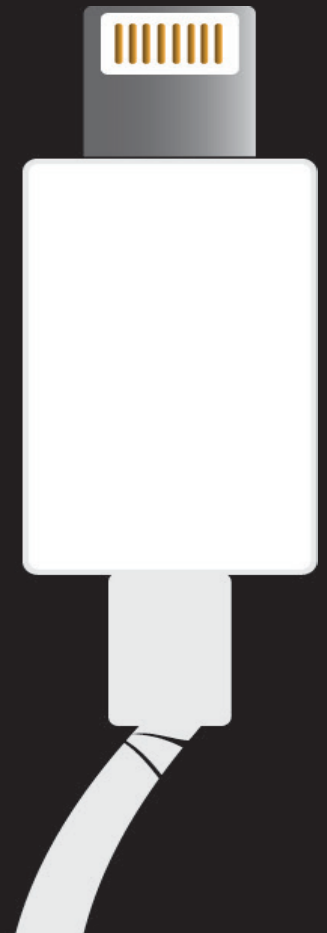


*Ali Haydar Joel Hayman*

# Fraid Knot

How many chargers have you bought?



# Fraid Knot

*Ali Haydar Joel Hayman*

## Innovation

Growing up you would have had your basic Apple 30-pin USB cable, to your now known lightning cable to the thing that air charges your phone and apple watch at the same time... BEHOLD the magnetic charging dock. The apple USB-C to lightning cable is just one way your Apple iPhone charges. Truth be told, is Apple providing its consumers a well worth it product? The USB-C lightning cable is compatible with a range of apple devices, throughout the design process this would have been taken in to consideration. The cable allows for fast charging, transfer of files from one device to another in just seconds. A simple cable has innovated overtime to activate mechanisms which allow for personal hotspot while being connected over a USB-C to lightning cable, now that's innovative!



## Materials & Design Process

Apple has designed and made their lightning cable compatible with iPads, iPhones and MacBook's. They are constantly innovating unique ways in how they can ensure the best for apple and its brand. Apple claims to have the top of the range quality within the products which they sell to their consumers, but do the reviews on their website state so? The essential features of the major cable sold from apple (the lightning connector) consist of (front, top and socket angles). The cord uses 8 pins that connects to the (lightning connector). The process of the cord uses these 8 pins to circuit the electricity which circuit through providing the socket with enough electricity to charge/fast charge the individual battery and adapt to other features such as "Siri voice recognition" or "fast charging".

## Durability

The lightning cable chargers that iPhone has put out has it's good and bad sides to it. It can make you pay more money for new chargers which wear and tear in a short life span. Are you someone who has to tape your charger to cover up the wires by preventing you to electrocute yourself. Apple overtime has had a range of reviews both negative and positive that ensures the consumer is 100% sure before making a purchase. The lightning cable is smaller – the connector is all digital. It is more durable compared to the 30-pin connector that it has replaced. Reversibility – Most people have had problems with finding the right side to place the charger in the slot with the old iPhones such as from the iPhone 3's to the 4's where as reversibility has taken place ensuring convenient usage to users. Some reviews on the negative side consist of speed – the charger not living up to its expectation of being called 'lightning'. The charger uses USB 2.0 technology instead of USB 3.0 (Which is the latest version of the standard cable).

### References:

Apple (AU). (2018). Lightning to USB Cable (1m) Reviews. [online] Available at: <https://www.apple.com/au/shop/reviews/MQUE2AM/A/lightning-to-usb-cable-1m> [Accessed 21 Oct. 2018].

Apple (AU). (2018). Lightning to USB Cable (1m) Reviews. [online] Available at: <https://www.apple.com/au/shop/reviews/MQUE2AM/A/lightning-to-usb-cable-1m?page=0&rf=5> [Accessed 21 Oct. 2018].

Apple (AU). (2018). About the Apple USB-C to Lightning Cable [online] Available at: <https://support.apple.com/en-au/HT205807> [Accessed 19 Oct. 2018].

In one test, they record that there was only a 4.5-second difference in transfer speed. Distribution – In 2011, Apply was one of several companies including (Nokia, LGE and Samsung) which supported the International Electrotechnical Commission in promoting a universal micro-USB charging standard. A regular micro-USB would be similar in size to the Lightning cable, but Apple controls the specs for the lightening on its own.



Akanegbu, A. (2018). What You Need to Know About Apple's Lightning Connector. [online] Technology Solutions That Drive Business. Available at: <https://biztechmagazine.com/article/2012/10/what-you-need-know-about-apples-lightning-connector> [Accessed 22 Oct. 2018].

Marshall, G. (2018). Apple Lightning connector: what you need to know. Retrieved from <https://www.techradar.com/au/news/computing/apple/apple-lightning-connector-what-you-need-to-know-1106884> [Accessed 21 Oct. 2018].

Theiphonewiki.com. (2018). Lightning Connector - The iPhone Wiki. [online] Available at: [https://www.theiphonewiki.com/wiki/Lightning\\_Connector](https://www.theiphonewiki.com/wiki/Lightning_Connector) [Accessed 14 Oct. 2018].

## The Development of the iPhone charger



Apple 30-pin

The Apple 30-pin charger that was used for the iPhone 3-4



Lightning Cable

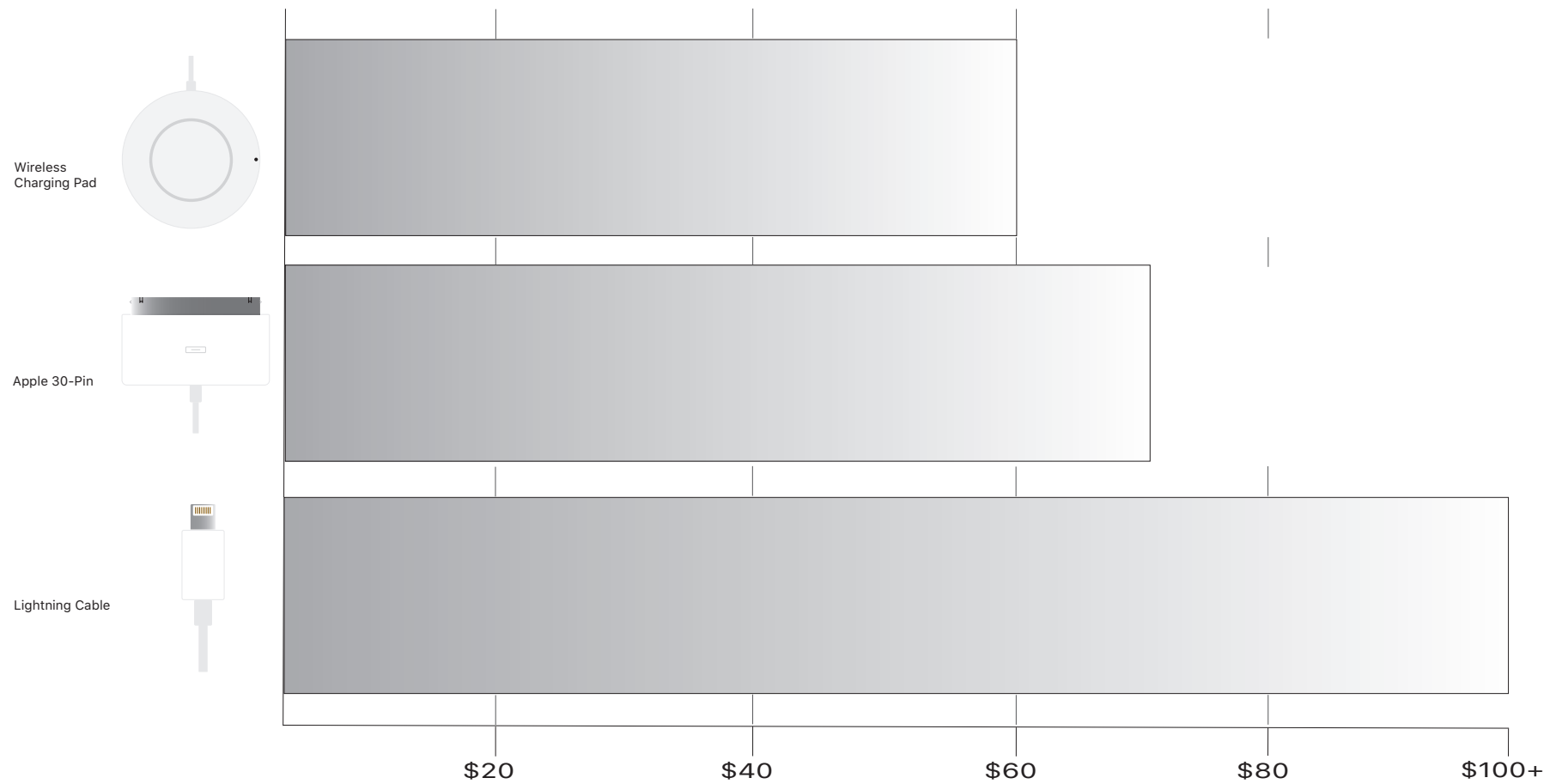
The Lightning Cable that can or is used for every iPhone from the iPhone 5 to the



Wireless Charging Pad

The Charging Pad is used from the iPhones 8 to the iPhone 10

## Money spent on chargers



This is the money spent on chargers throughout the life-span of a typical iPhone user.