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# Outer shell, Outer this world!

What does the future hold for iPhones' Outer shell?



# What lies ahead for the Outer shell?

Introduction, Future Possibility, Durability

Throughout the years, the external casing of the iPhone has gone through numerous iterations from using aluminum, plastic and now glass for the back of the phone. Apple has decided to go through these changes to not only improve the rigidity of the device, but to also cater to the trends within the electronics industry. They were one of the first companies to pioneer the unibody design, making their products much more sleek and attractive.

Here, we will be discussing about the premium materials in which Apple holds themselves highly too and explore whether these improvements would result in stronger and durable phones and the future prospects of the iPhone lineup.

The creators of Apple iPhones have pursued a pattern in their introduction of the smartphone. Initially, the original iPhone was recorded at 3.5 inches, and today it is 6.5 inches. Through the generation of iPhones, it is evident that "bigger is better" suggests Samuel Gibbs. Each generation gets larger in size. However, the question remains whether iPhones will keep making their phones bigger or will there be a move to make them smaller.

According to Rebecca Kuo from digitime magazines states that the iPhone released in 2020 will be smaller due to its convenient handset size. As a result, it seems evident that iPhone designers are reacting to consumer demand.

Over the years, there has been an increase of durability in the iPhone. For example, the introduction of the iPhone 8 has accompanied a new glass outer shell with metal reinforcements for improved durability as well as to facilitating wireless charging. However, according to Samuel Gibbs from the Guardian article stated that although the iPhone 8 is durable, the new black glass shell makes it "significantly difficult to repair and very costly to replace," due to the use of large quantity of powerful glue. The article states that "it costs more to replace the back than the actual screen".



# A closer look into iPhone materials

The first model consisted of a three-piece design; an aluminum backplate, a plastic antenna plate, and a chrome trim holding the pieces together. In recent times, Apple has decided to replace their highly praised aluminum shell with a glass-back design. This was chosen to cater to the recent trends of wireless charging options across the bulk of hand-held electronics. However, this led to a higher risk of cracking the panel due to their natural properties and low compressive stress.

The benefit of Apple's choice of materials is that they now use stainless steel for the side trimmings, an improvement over aluminum with 5.5 Mohs scale of hardness opposed to 3 Mohs (aluminum). The glass used for the iPhone 11 consists of a 6 Mohs scale, making it very hard to scratch in everyday circumstances. Overall, Apple has greatly improved the structural nature of their phones with Apple's senior director of marketing,



Kaiann Drance stating that the glass on the new iPhone 11 models are the "toughest ever in a smartphone, on the front and back" 2019.

According to an article by independent, Apple could launch the new iPhone in a whole host of new colours, according to a new report. The change would make one of the most profound alterations to the iPhone in recent years. For a long time, all of Apple's products have come in only a limited number of colours: primarily variations on gold, black and white. But the successor to the iPhone X could come in blue, red, and orange, as well as the more traditional grey and white. The bigger phone might come in a gold model, too.

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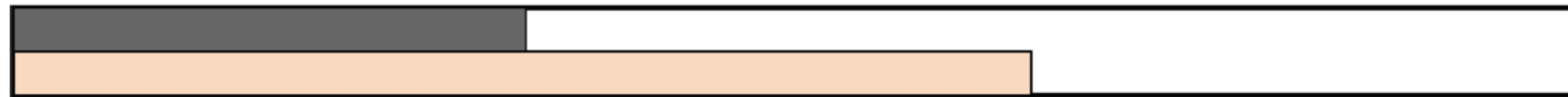
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# IPHONE SIZE COMPARISON

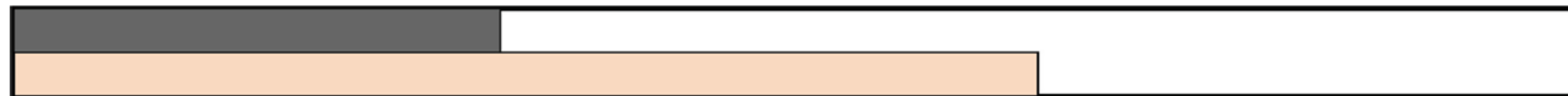
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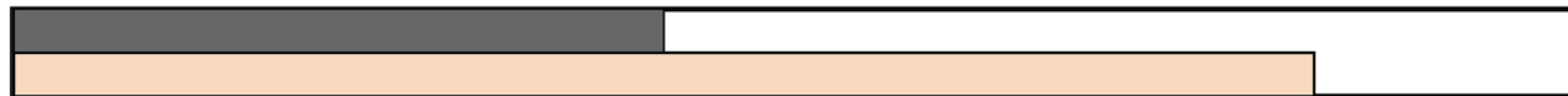
IPHONE 1ST GENERATION

61MM | 115MM



IPHONE 4

58.6MM | 115.2MM



IPHONE 7

67.1MM | 138.3MM



IPHONE 11

75.7MM | 150.9MM