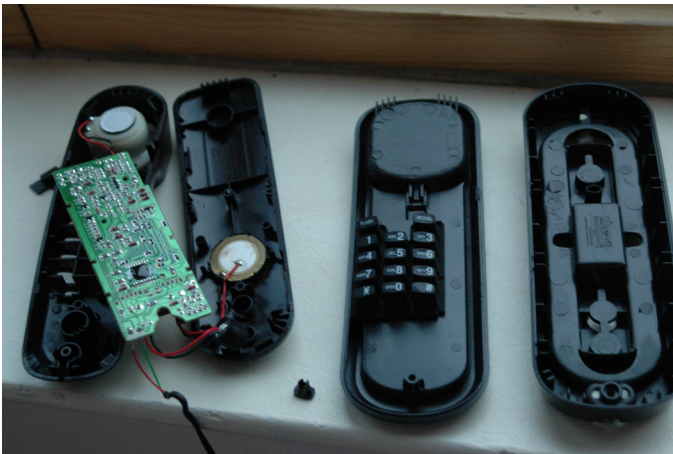


Plastic Phone to be Made of Wood



Cheep Plastic V Tech Phone



Expanded View of the bottom left corner of the last piece if preceding photo. Notice that this piece has little wings that support the outer wall. These wings would be deleted in the wood version. The outer wall would simply be made thicker to acomodate for the structural regidity lost from deleted wings

Same Phone in Pieces

Expanded View



Above is the graphic that Olympus uses to show how their 3-Dimensional Compression moulding is done.

Materials and Manufacturing

ADDA4001

Andre Elista

30 Dec 2018

Wooden Telephone

Jamie St Louis

Let's take a plastic telephone and make it out of wood.

In our modern world people are always looking for new ways to improve upon products. This is especially true as over time products seem to be made more and more cheaply. One way to bring some class back to consumer products would be to consider adding wood where ever possible.

Our telephone was originally made of injection moulded ABS plastic. This is common for many household items including but not limited to electronic items. In this case it has been asked that a single construction method a single material be replaced for a new material and construction process. Three-dimensional compression moulding for wood has been chosen along with ash as the wood. Ash has been chosen because it is a strong hardwood and because it is bendable.

In 2006 The Olympus corporation showcased a new method of shaping wood, so it can be used for consumer products. This surprised and delighted many as it now seems possible to shape wood in such a way that it can be used to house consumer electronics. Wood has been used as a casing for many electronic product in the past. As a matter of fact, wood was used to house electronics products before most other material. The first Apple computer was housed in wood. The first telephone was housed in wood. We have different expectations however, between the first electronics that were offered and what is offered today. Because of these modern expectations Three-Dimensional Compression Moulding seems to be a useful way to help meet these modern needs. In the past electronic devices were housed in what looked like common wooden boxes. This was just fine for some applications like a computer. However, this will not do for many applications.

There are a few reasons why a simple wooden box can not be used to house many of today's electronics products. These reasons are strength complexity and cost. They all dovetail together. We need to be able to toss our digital cameras in our pockets. They need to be able to withstand a bit of abuse. The average wooden box is constructed in a way that would perhaps break if it were used the way we use digital cameras. In order to get a piece of wood to be shaped in the same manner as the casing for an electronics device we need to get creative. Last we need to add some strength to that piece of wood. That piece of wood needs to not only be shaped in a very complex way but it needs to withstand impact torsion moisture and high temperatures. Somehow the Olympus corporation has devised a way to shape and compress wood into the shapes necessary for the product of today's electronic device. This is great. However, there is one caveat. These technologies are proprietary. No-one knows what these technologies are. Hopefully more and more companies will follow suit and discover ways of three dimensionally compression moulding wood. This would be great because there are so many benefits to using this technology.

One benefit of three-dimensional compression moulding wood is the environmental benefit. The planet would benefit from using wood, because wood is renewable, while plastic is finite. Plastic as we all know is a petroleum product. Petroleum comes from the ground and is of a finite supply. Wood on the other hand if managed properly is a renewable resource. Also, as long as we do not chop down all our trees at once we can have lots of wood.

The health benefits of wood are worth noting. Many people do not take this into consideration, however plastic is constantly in a state of decay. Plastic is always giving off tiny bits of particles. These particles are so small, that the eye cannot see them. These bits will get into a person's blood stream. Consider the fact that some products are designed to be held in our hands for long periods of time it is easy to see how plastic particles make it into our bodies. Plastic is a foreign substance that our bodies are not designed to process. If we made more products out of wood our health as a society would improve greatly. We wonder why cancer rates are so high. Last we wonder about a whole array of health issues that have cropped up in that past few decades. We owe many of these health issues to the use of plastic. If we could simply remove plastic from as many products as possible we would be in a better place.

The planet also is harmed by plastic. Most water supplies have large amounts of microscopic bits of plastic in them. Our waters are permanently tainted. This affects not only human life but plants and animals as well. Please consider wood the next time you purchase or design something.

Materials List:

ABS Plastic or Acrylonitrile butadiene styrene: This is used to make the casing of the phone. It is also used to make other various bits, such as the volume button on the side of the plastic plug that hides the screw on the face of the phone.

Ash Wood: The new material for the casing of this phone.

Black Silicone rubber: Used for the number pad set up and to cover the microphone.

Clear Silicone Rubber: Used for the phone cradles feet.

Copper wire coated in PVC or Poly Vinyl Chloride. This is used to wire the speakers to the main bread board. It is also used to connect the receiver to the wall outlet.

Nylon Plastic: This is used to make the cylinder that holds the speaker that goes up against your ear. Nylon is known for its durability. It has good tensile strength.

Stainless Steel: Cap screws, used to hold phone together.

Bibliography:

Core 77 *Wooden Camera* available at

<https://www.core77.com/posts/5227/wooden-camera-5227>

(Accessed 30 Dec. 2018)

Ricor *Ricor's Wooden Bike* available at

<http://ricor.photography/design/ricor/>

(Accessed 30 Dec. 2018)

Camera Town *Olympus Working on a Digital Camera with a Wooden Body*

<http://www.cameratown.com/news/news.cfm?id=3113>

(Accessed 30 Dec. 2018)