

HoloView Mobile Product Possibilities

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I. Product Background

The Pepper's ghost illusion has captivated theatre audiences for over 150 years. Traditionally, the illusion was used onstage to create the image of ghostly characters for the actors to interact with. In more modern contexts, Pepper's ghost is used to create many of the ghosts in the Haunted Mansion, and is even the display mechanism behind teleprompters. Still, for the majority of the population, exposure to the Pepper's ghost illusion results in amazement. In the modern context, most people don't consider the image to be of a ghost, but rather a hologram. The first iteration of the Pepper's ghost illusion was much more complex than the simplified version technology allows us to have today.

Originally consisting of an actor (dressed as a ghostly figure) underneath the stage, bright light was shined on them, which was then refracted through a series of mirrors before being passed through a clear glass pane on the stage, angled at 45 degrees to the incoming reflection, which focused the image for the on looking audience. Today, we can achieve this same effect by simply angling a piece of clear plastic or glass at a 45-degree angle from an image displayed on a flat screen. Scaled, this can apply to mobile phones, computer monitors, televisions, and even projectors with little loss of quality. A prototype has been developed which allows any person with access to a smartphone or tablet to create a "hologram" image on their device with little assembly.

II. Our Market

Rather than selling our product to the public ourselves, our target market would be science museums who could sell our cool and educational product. There are over 275 science museums currently open in the US that we could pitch HoloView Mobile to. The true target, however, would be students on field trips. I remember going to several science museums as a kid, and I always was given some money to spend in the gift shop. Over the years, I collected quite a few souvenirs from my trips. I remember specifically that I loved a plasma ball and a Newton's cradle that I would toy with a lot, and actually learned a lot about science from doing so. I want to include HoloView Mobile in this area of cool, educational science souvenirs, which I remember distinctly as a part of my childhood.

Our competitors, in this way, would be other educational products, commonly found in gift shops. I have found no direct competitors through my research, save a little known Italian company (HoloHo) which sells a similar device for phones and tablets online for as much as 55 euros. HoloView has the advantage here, being cheaper and available directly in the United States. Thus, our other more prominent competitors would be companies manufacturing plasma balls, newton's cradles, hobby rocket kits, and other educational scientific souvenirs. In addition to supplying museums with an additional product to sell in their gift shop, HoloView could potentially couple the sale of many units with a full size, interactive HoloView exhibit for the museum.

III. Branding

Our mission statement is as follows: "HoloView is committed to making quality hologram technology for mobile devices readily available to the educational community." Our logo is shown

below:

H O L O  I E W

HoloView's icon is the teal "V" found in the logo above. This stylized V is a simplified silhouette of HoloView mobile. Included in the prototype, each base part of HoloView mobile contains an imprint of the V icon in the center, for branding. Additionally, imprints of the specific museum's logo or icon could be imprinted in replacement of the HoloView "V" or along one of the legs. HoloView also has its own operational website, allowing interested students to see the new research being conducted by HoloView, as well as providing a place for resources such as videos and app links. Building on the previously discussed museum exhibits, HoloView could not only sell HoloView mobile to science centers, but could additionally sell interactive exhibits themselves to science and children's museums throughout the United States at cost. By getting our foot in the door and contributing to the museum itself, we strengthen our bond with the museum, get patrons much more interested in our products, and establish ourselves as a company interested in student education.

IV. Prototype/Manufacturing

Developed last year, HoloView Mobile offers a sleek, professional alternative to DIY projects producing a similar product. Last summer, several videos circulated around the internet showcasing this technology, and showing people how they could build their own versions of the device. Well, I was very interested in the video, so I decided to build myself my own version of the device. During the building process, I cut my finger while cutting out a piece of a CD case. I realized that people imitating this video at home must be having the same problem, and there could be a need for a much higher quality product that was much easier to assemble than the shoddy DIY alternative. The finished prototype is compatible with many videos on YouTube and other video platforms.

The final HoloView Mobile prototype consists of 5 parts: one base, and four identical trapezoidal panels. Originally 3D printed, the base has four legs for balance, and a small, square center to go in the middle of the phone screen. Injection moulding would be the best manufacturing method for the base. The four panels are laser cut clear acrylic, although if manufactured, PETG would be cheaper. Per unit, the prototype made with 3D filament and acrylic cost roughly \$0.45.



If manufactured for scale, the time manufacturing would go down significantly, although it's difficult to tell if there would be a noticeable drop in cost, with the original prototype being so cheap to manufacture. Nevertheless, HoloView should be less than \$0.50 per unit if manufactured for scale, allowing a huge profit for each unit sold (\$15-20).