STEREOSCOPIC PERSONAL PORTABLE VIDEO VIEWER

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to personal viewer devices and, more specifically, to a viewer device configured to watch side-by-side stereoscopic videos played back on a personal portable hand-held video viewer.

[0003] 2. Description of the Related Art

[0004] Personal portable hand-held video viewers (such as an iPod® available Apple Corp.) have become a common mode of viewing videos that are received from the global computer network. Currently, commonly available personal video viewers display videos in a two dimensional viewing format.

[0005] An increasing number of videos are being released in three dimensional formats. However, current personal video viewers are unable to display three dimensional videos because they lack a mechanism for viewers to view such videos.

[0006] Therefore, there is a need for mechanism to allow viewers to view three dimensional videos on a personal video viewer.

BRIEF DESCRIPTION OF THE FIGURES OF THE DRAWINGS

[0007] **FIG. 1A** is a perspective view of one embodiment of the invention.

[0008] **FIG. 1B** is an elevational view of the embodiment shown in FIG. 1A.

[0009] **FIG. 2** is a plan view of a cardboard cut-out that can be folded into a second embodiment of the invention.

[0010] **FIG. 3** is a photograph of the embodiment shown in FIG. 2 after assembly.

[0011] **FIG. 4** is a photograph of the embodiment shown in FIG. 3 with a personal video viewer in place.

[0012] **FIG. 5** is a photograph of the embodiment shown in FIG. 4 in use.

DETAILED DESCRIPTION OF THE INVENTION

[0013] A preferred embodiment of the invention is now described in detail. Referring to the drawings, like numbers indicate like parts throughout the views. Unless otherwise specifically indicated in the disclosure that follows, the drawings are not necessarily drawn to scale. As used in the description herein and throughout the claims, the following terms take the meanings explicitly associated herein, unless the context clearly dictates otherwise: the meaning of "a," "an," and "the" includes plural reference, the meaning of "in" includes "in" and "on." As used herein, the "global computer network" includes the Internet.

[0014] As shown in FIGS. 1A and 1B, one embodiment of the invention is a stereoscopic personal video viewer **100** that includes a holder **104** into which is placed a personal video viewer **102**. The portable hand-held personal video viewer **102** is configured to display a stereoscopic video **120** in a side-by-side stereoscopic video format. In such a format, each frame of the video **120** is displayed in to separate stereoscopic images **122a** and **122b**. The

first image **122a** would be perceived by a left eye and the second image **122b** would be perceived by a right eye of a viewer of a three-dimensional object.

[0015] A stereoscopic viewer **110** is held apart from the personal video viewer **102** by a viewer support structure, such as four wire legs **114** in the embodiment shown The stereoscopic viewer **110** includes two lenses **112** that facilitate viewing of the video by directing each eye of the user to the appropriate image **112a** or **122b** so that the user perceives the video **120** as a series of three dimensional images.

[0016] In one embodiment, as shown in FIG. 2, the holder and stereoscopic viewer can be made from a unit **200** that can be punched out from cardboard, for example from the back of a cereal box. The single unit **200** can be folded to hold the personal video viewer **102**. The unit **200** includes a fold-over envelope **210** for holding plastic lenses. Punch-outs **212** provide openings for the lenses. In the cereal box embodiment, the lenses can be included inside of the box. One way of mass producing the viewer would be to glue the lenses into the proper position, which would require less cardboard and which would be easier for a user to assemble.

[0017] A photograph **300** of this embodiment, once assembled, is shown in FIG. 3. A photograph **400** of this embodiment with the personal video viewer in place is shown in FIG. 4. A photograph **500** of this embodiment in use is shown in FIG. 5.

[0018] In using the invention, videos are produced in stereo side-by-side format. The videos can then be distributed to the user's hand-held portable video viewer via the global computer network. Distribution of the videos can be done via the global computer network, via a wireless networking system or any other way of distributing digital content known to the art. Video can be downloaded or streamed in one of several ways. Playback methods include but are not limited to: Web browser-initiated playback, custom application initiated playback (e.g., iphone®, iPod® Touch®), or local media player based playback (e.g., Quicktime®).

[0019] The above described embodiments, while including the preferred embodiment and the best mode of the invention known to the inventor at the time of filing, are given as illustrative examples only. It will be readily appreciated that many deviations may be made from the specific embodiments disclosed in this specification without departing from the spirit and scope of the invention. Accordingly, the scope of the invention is to be determined by the claims below rather than being limited to the specifically described embodiments above.

[0020] The following pages show additional embodiments of the invention.

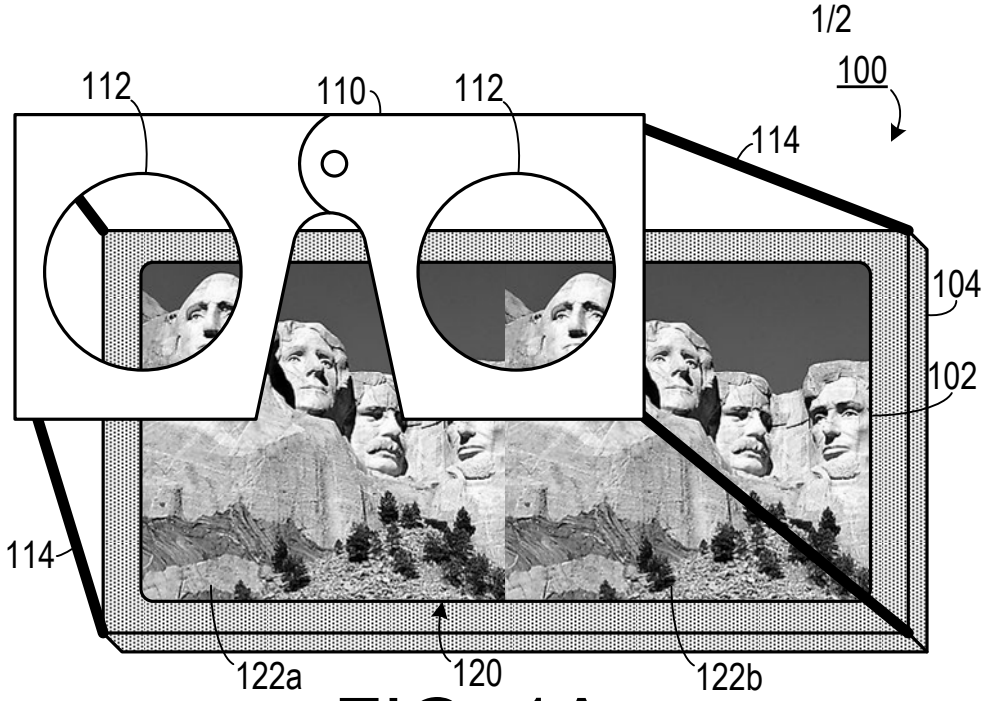

FIG. 1A

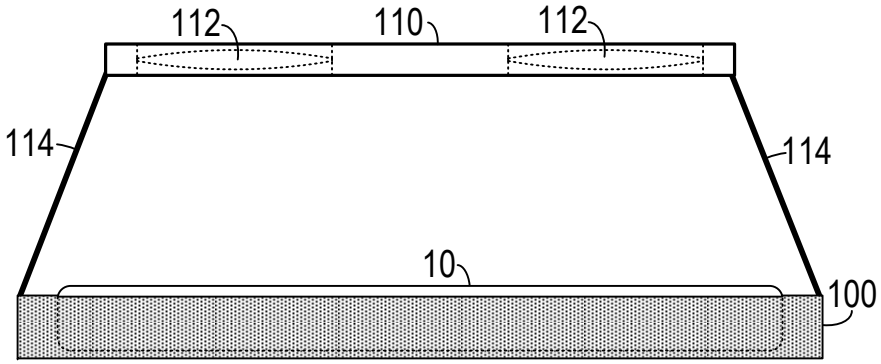

FIG. 1B

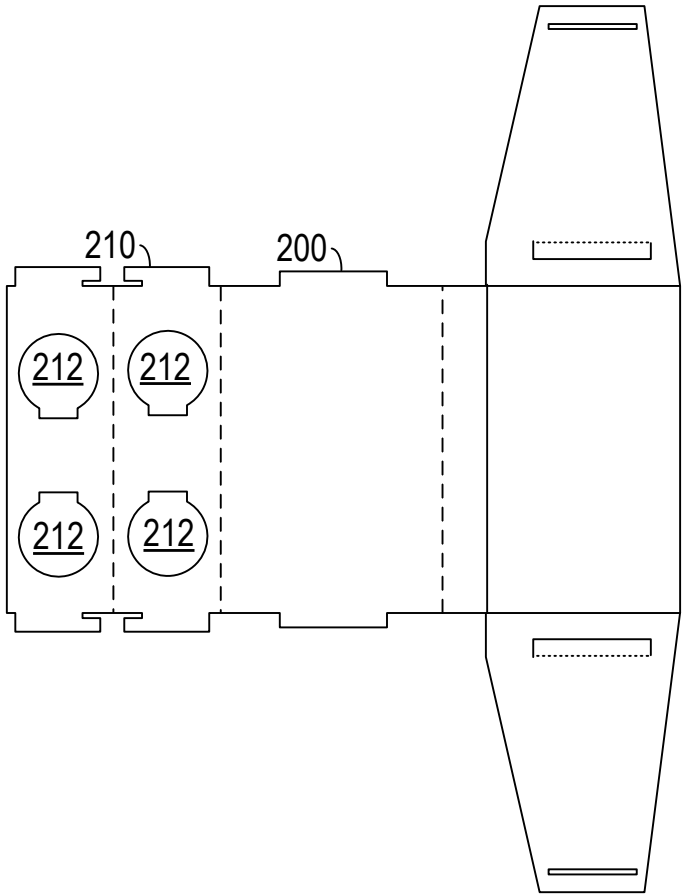

FIG. 2

300

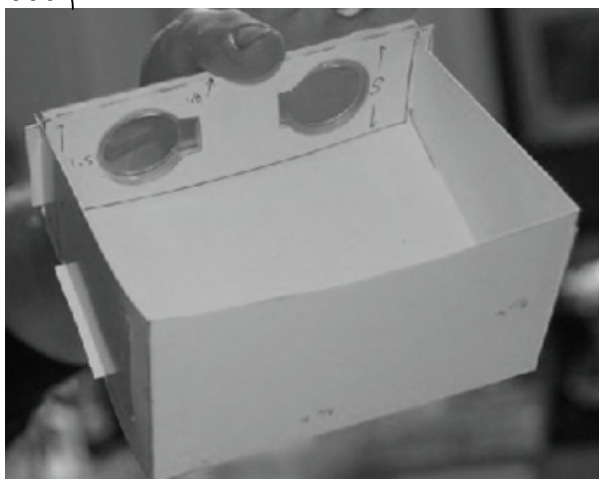

FIG. 3

400

FIG. 4

500

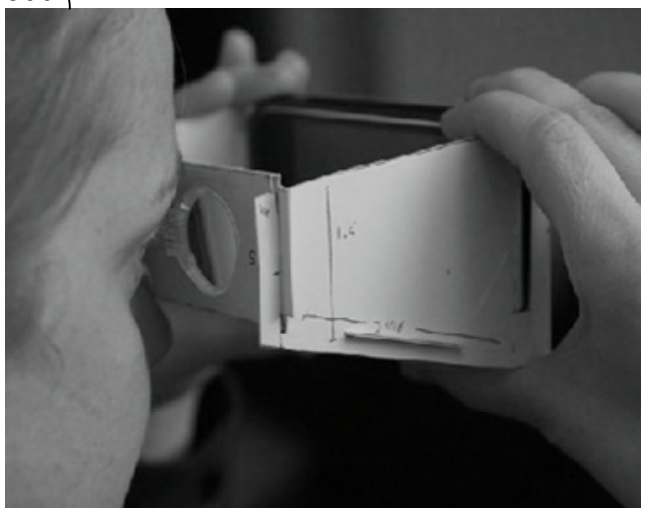

FIG. 5

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Mobile Device 3D Viewer

Device Synopsys:

The Mobile Device 3D viewer is a simple and elegant way to view 3D media content on an iPod Touch/iPhone or any other mobile device with a color screen under four inches. By piggybacking on current technology infrastructure to distribute content, the Mobile Device viewer will be sold to companies needing a simple and unique way to display 3D media content.

Device outline:

The Mobile Device 3D viewer combines the old technology used in the original stereoscope with popular consumer technology to deliver 3D content cheaply and easily to the end user.

The viewer is a simple paper or plastic stereoscope that accepts a mobile device such as the iPhone or iPod touch. When the iPhone's web browser is pointed to a specific website a movie will play that is specially formatted for the viewer.

Sample use for the consumer: A child receives a 3D Viewer in the in the form of a direct mailer, gift in a cereal box, or as an insert in a magazine. After simple assembly, the child (or their parent) will point the iPod/iPhone's web browser at the web address located on the viewer. The iPod/iPhone is then inserted into the

viewer as playback of the media starts. The child watches the programming through the viewer and sees the media in a full color and full 3D experience.

Commercial Appeal:

Viewer Customers: Potential customers to distribute the viewer include; movie studios, television networks, advertising agencies, video game publishers, medical imaging companies, and consumer product companies.

Viewer Distribution Methods: The 3D viewer could be distributed through many different channels. Examples of different ways that the viewer could get into the hands of the consumer would be: Direct mailer, magazine insert, cereal box, "do-it-yourself" kit, and merchandise giveaway.

Audience: Currently the largest consumers of 3D media are children from the ages of 8-12. Children are the prime candidates for the viewer because of its "cool" factor and integration with kid friendly technology such as the iPod Touch and the iPhone. As the acceptance and popularity of 3D media increases, the audience will grow to include teenagers and adults.

Other potential consumers of media to be played back on the Mobile Device 3D Viewer includes: (video) gamers, medical professionals, enthusiasts, and professional 3D photographers.

Media Distribution Methods:

The Mobile Device 3D Viewer can play back media content from *many* sources. Although the viewer is only the screening apparatus, it does not contain any physical media to be played back. The power and flexibility of the Internet provides the distribution of the 3D media.

Media such as video, or games, can be accessed through the device by using a simple web browser, custom application, RSS feed subscription via iTunes, or compatible mobile applications (YouTube, Streaming Servers, etc.)

The key to the media distribution is the fact that the software is already built into the mobile device. The video used can be displayed from tested and trusted sources already available on the mobile device.

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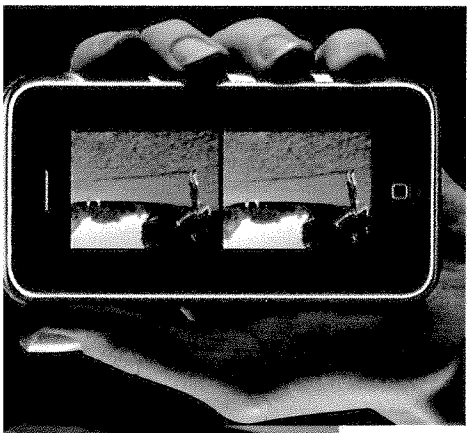

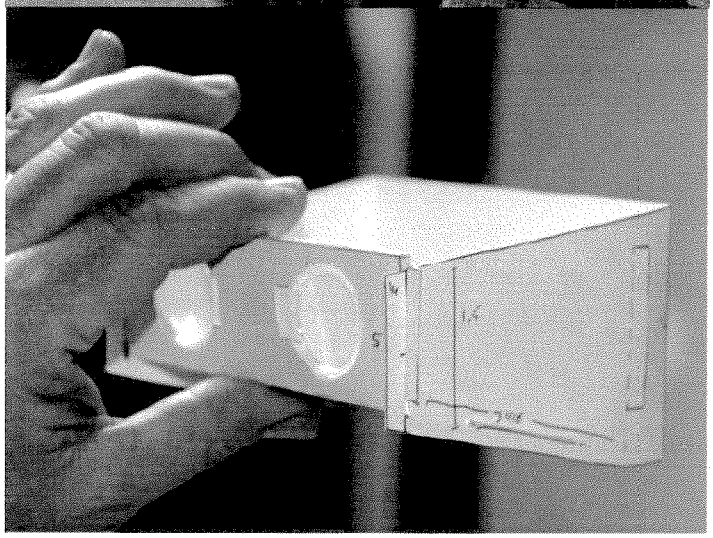

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In short, after inserting an iPhone into the paper viewer, you can watch 3D movies and other video content.

Device outline:

The Mobile Device 3D viewer combines the old technology used in the original stereoscope with popular consumer technology to deliver 3D content cheaply and easily to the end user.

The viewer is a simple paper or plastic stereoscope that accepts a mobile device such as the iPhone or iPod touch. When the iPhone's web browser is pointed to a specific website a movie will play that is specially formatted for the viewer.

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Background:

History: The common stereoscope has been around since the mid 1800's. Primarily used as a novelty device to add a 3rd dimension to still photographs, the device remained popular until the early 1920's.

The common stereograph (pictures) and stereoscope (viewing device) work together to deliver two slightly different images to the right and left eye. The viewer works in conjunction with special photographs taken with a stereo camera. This camera takes two photos 2.5 inches apart, simulating human vision. When the stereoscope is used with the two pictures, the human brain sees the photo in three dimensions.

Current Technology: Current 3D technology uses a myriad of ways to display 3D content such as movies, video games and medical imaging. Although the technology differs from the first stereoscope, the goal remains the same, which is to deliver two different images to the right and left eye to trick the brain into interpreting depth.

Over the past 10 years, technology has been developed that makes 3D media highly accessible to the consumer in their home and in specialty venues such as movie theatres and advertising kiosks.

This resurgence in 3D media has popularized the format and moved it out of a niche medium into the mass market. Everything from movies and games, to consumer electronics, now has the ability to playback 3D content in some way.

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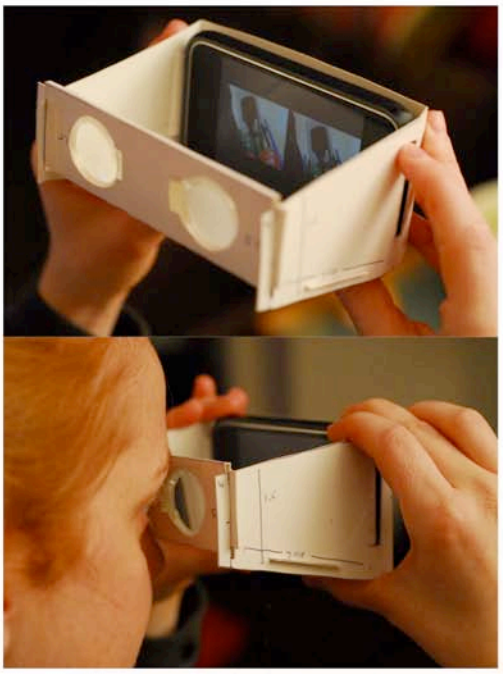
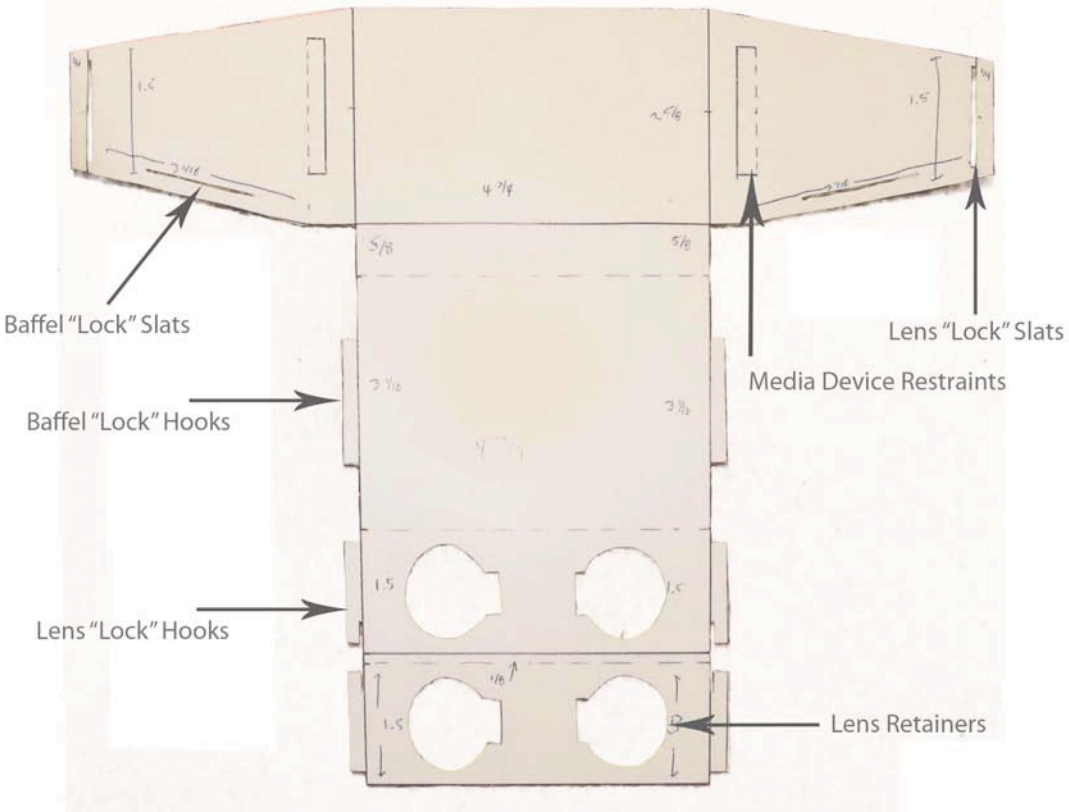


Viewer with device inserted
with "side by side" media playback

Viewer In Use

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for Peak
Performance


iPhone Stereoscope


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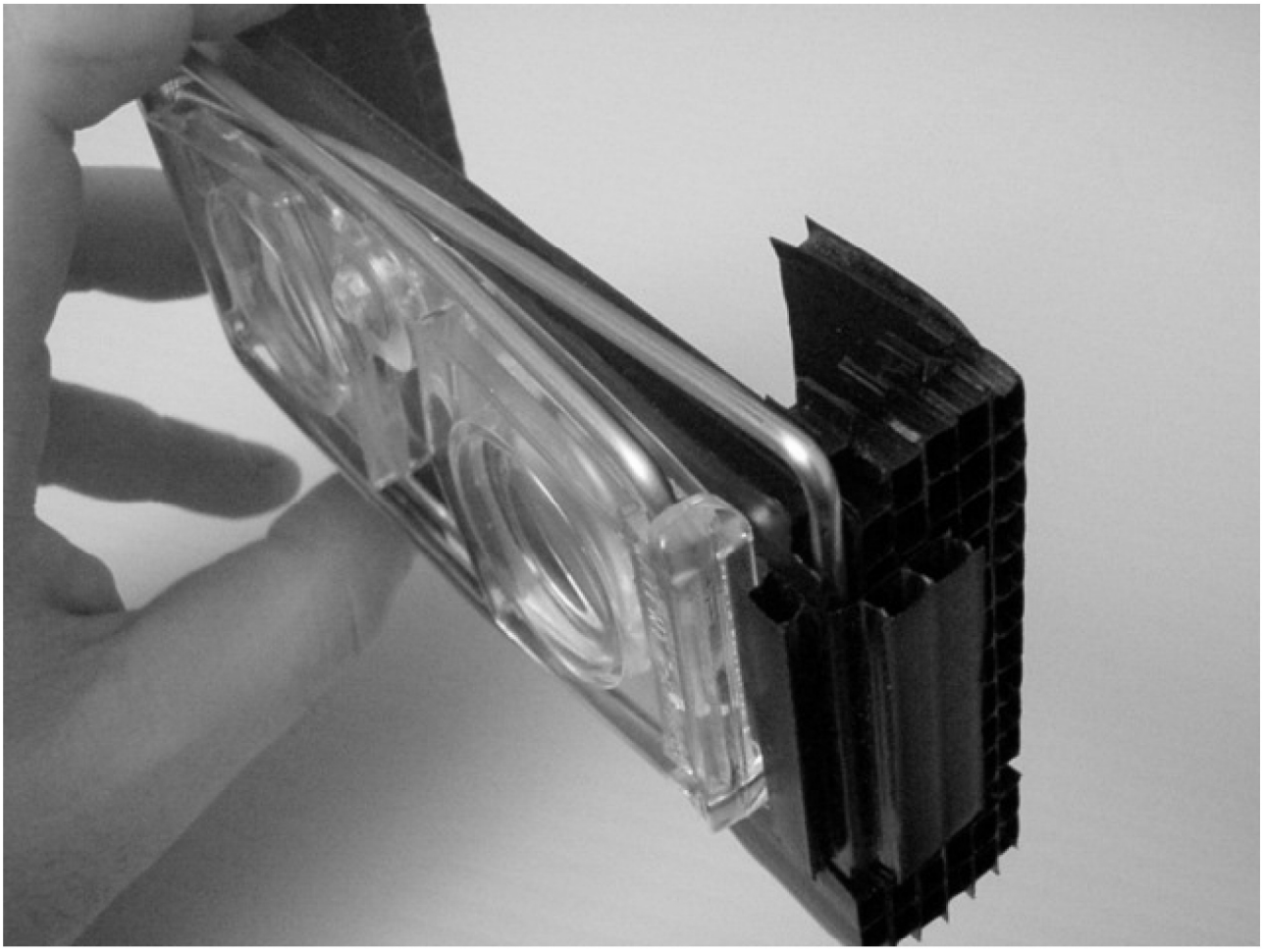

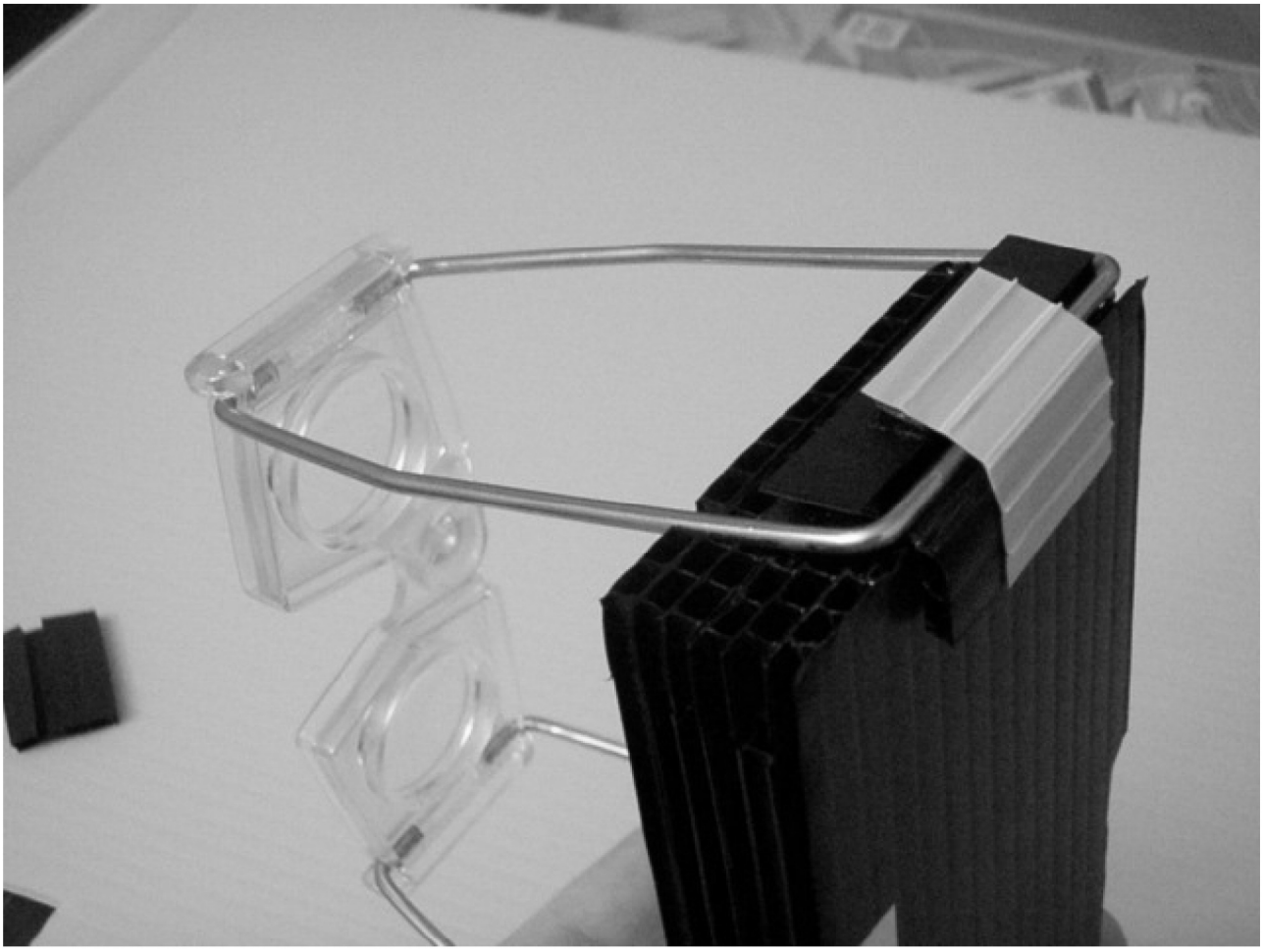

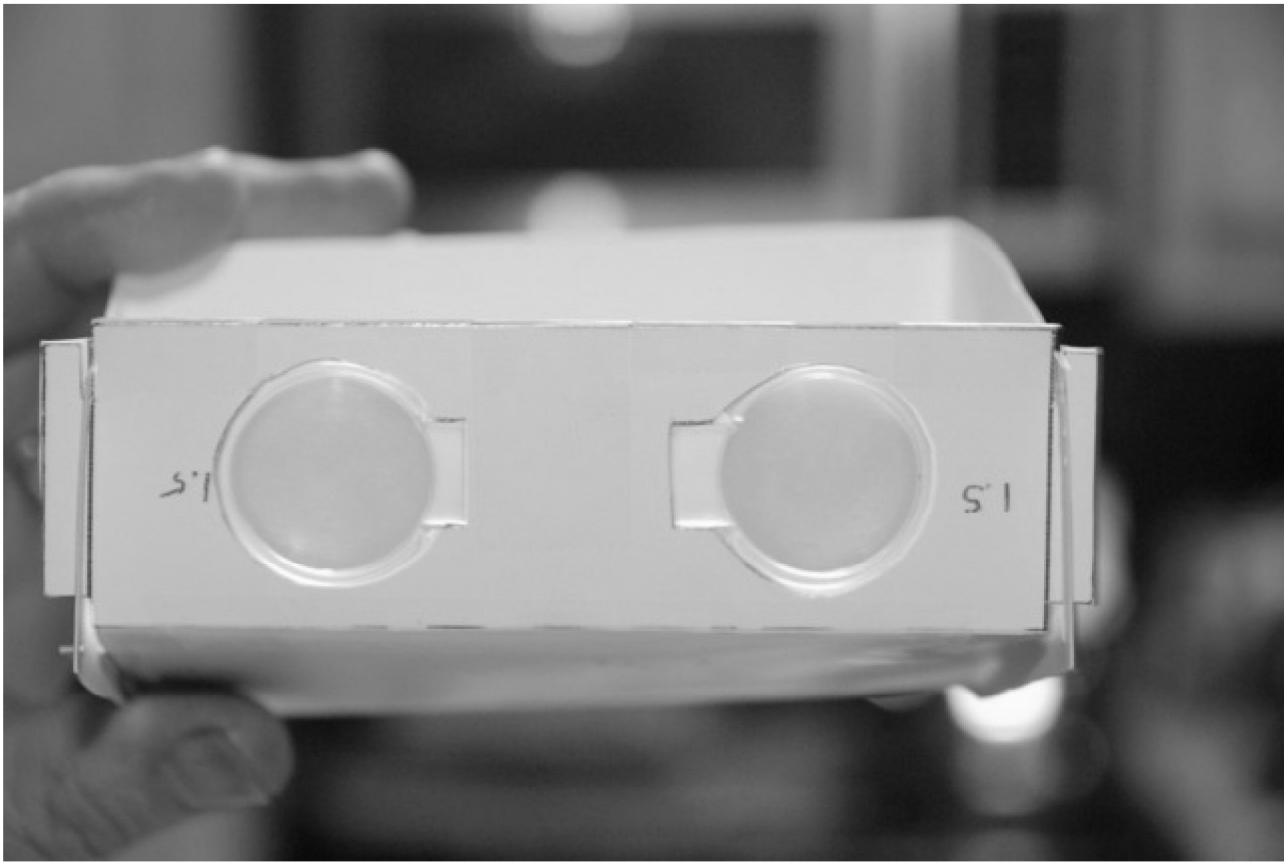

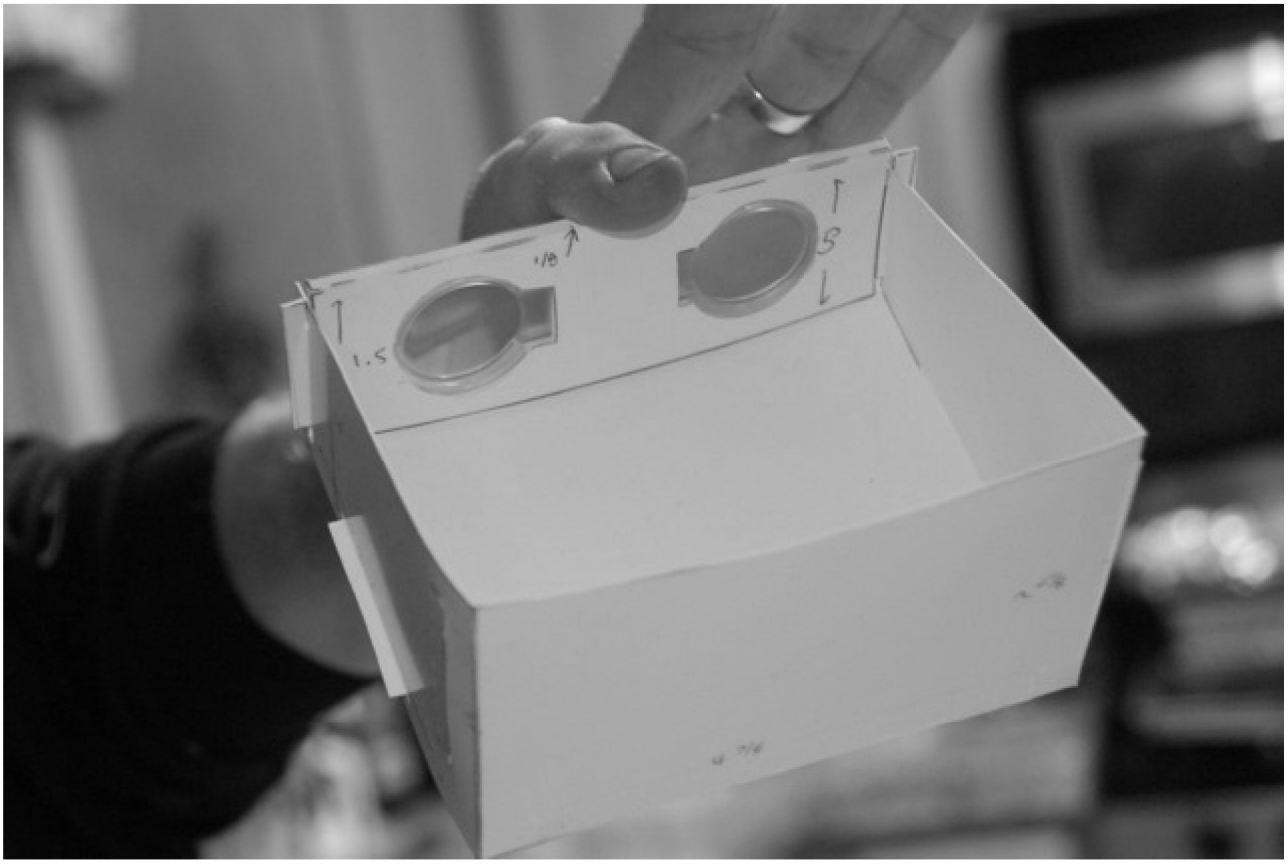

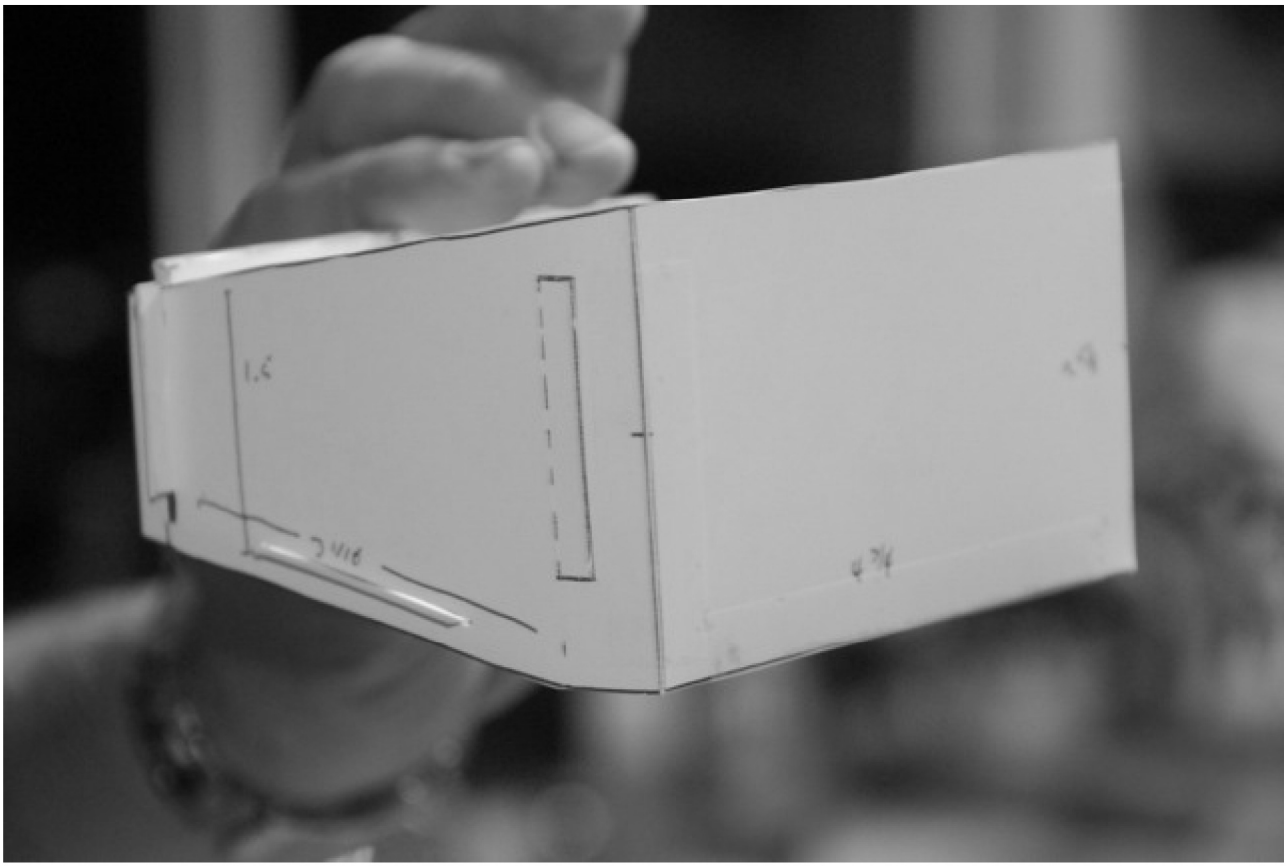

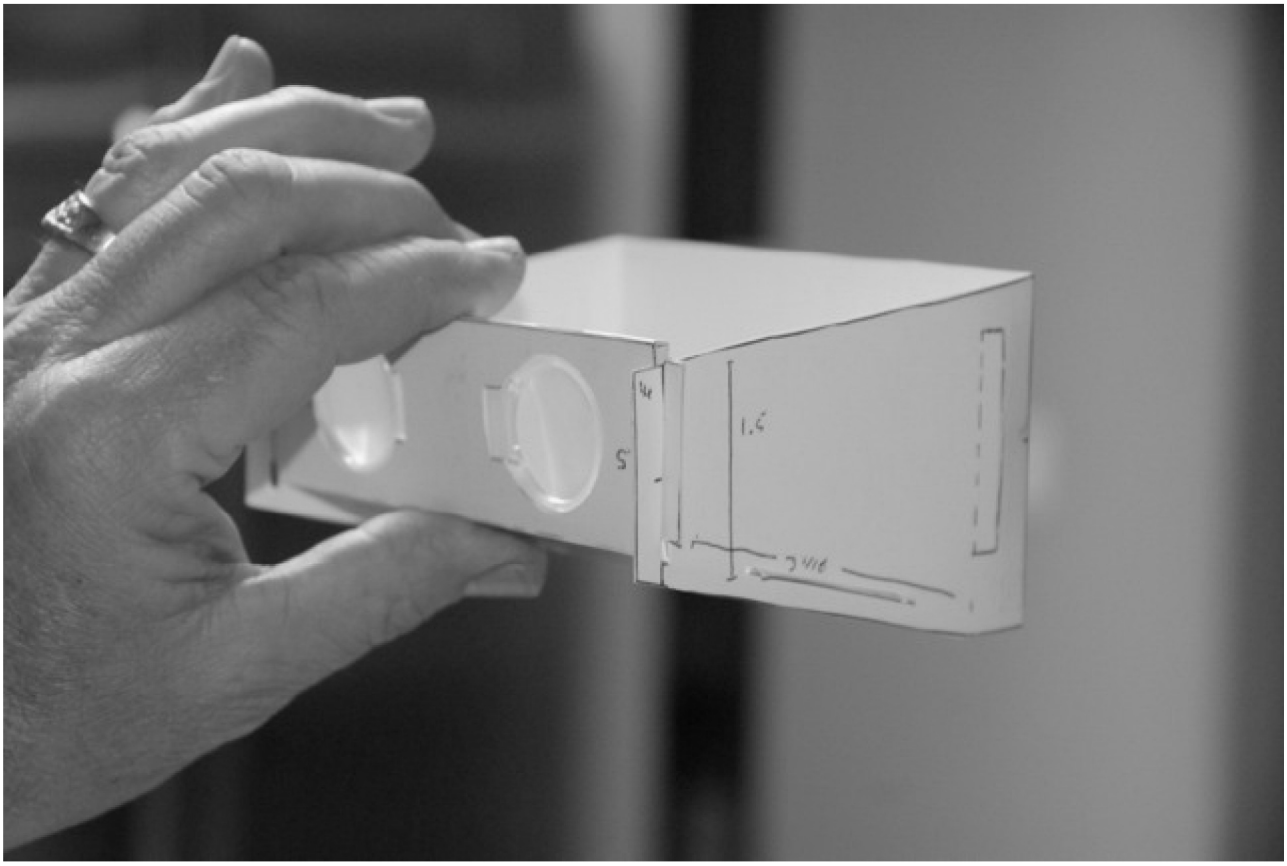
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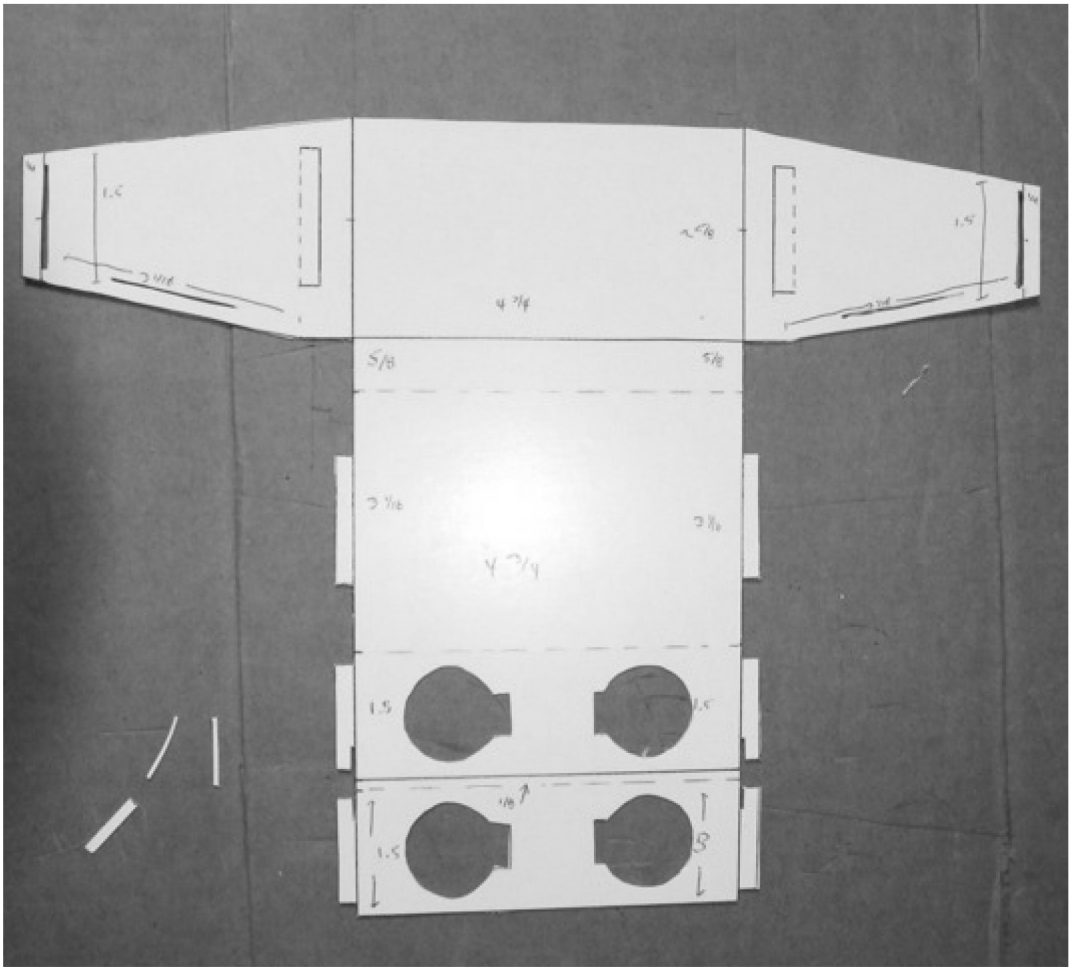
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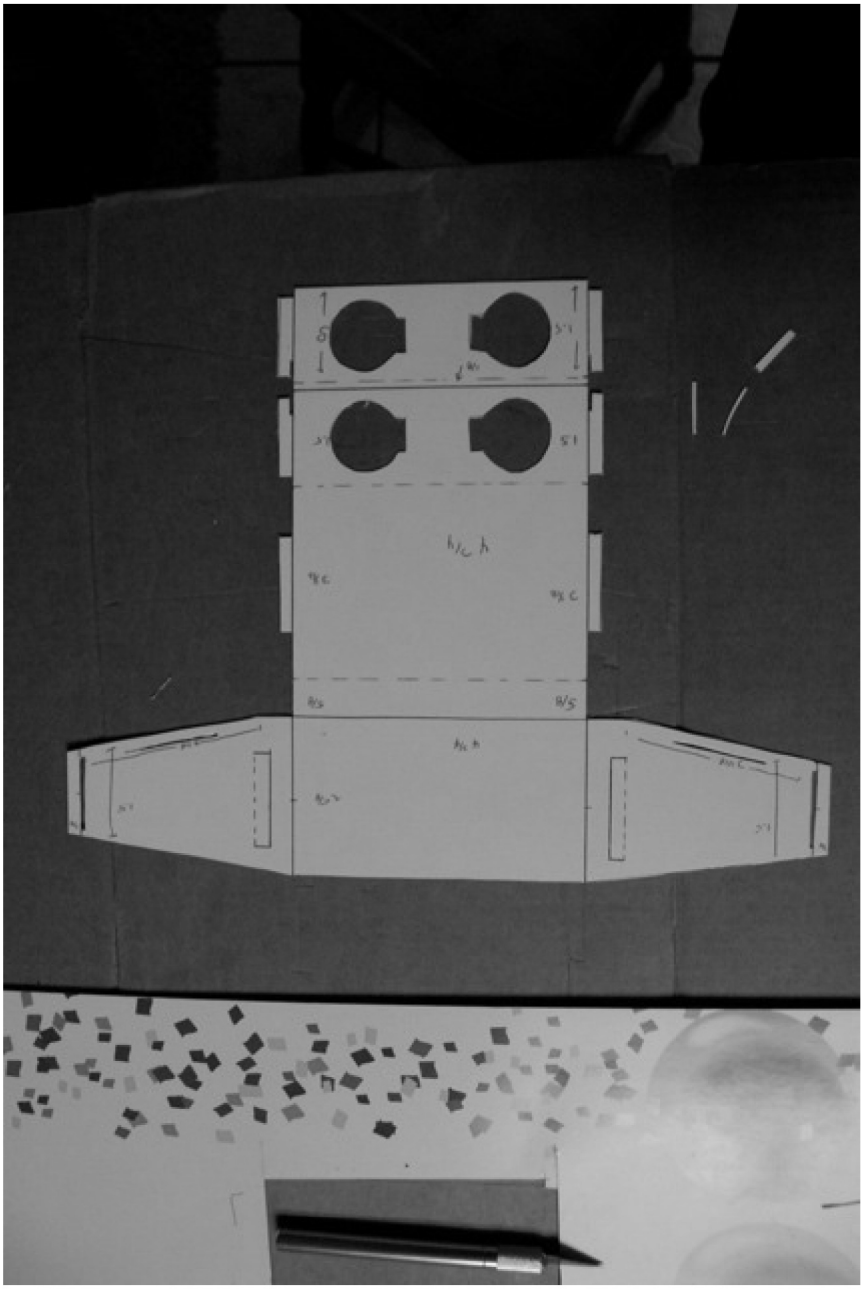

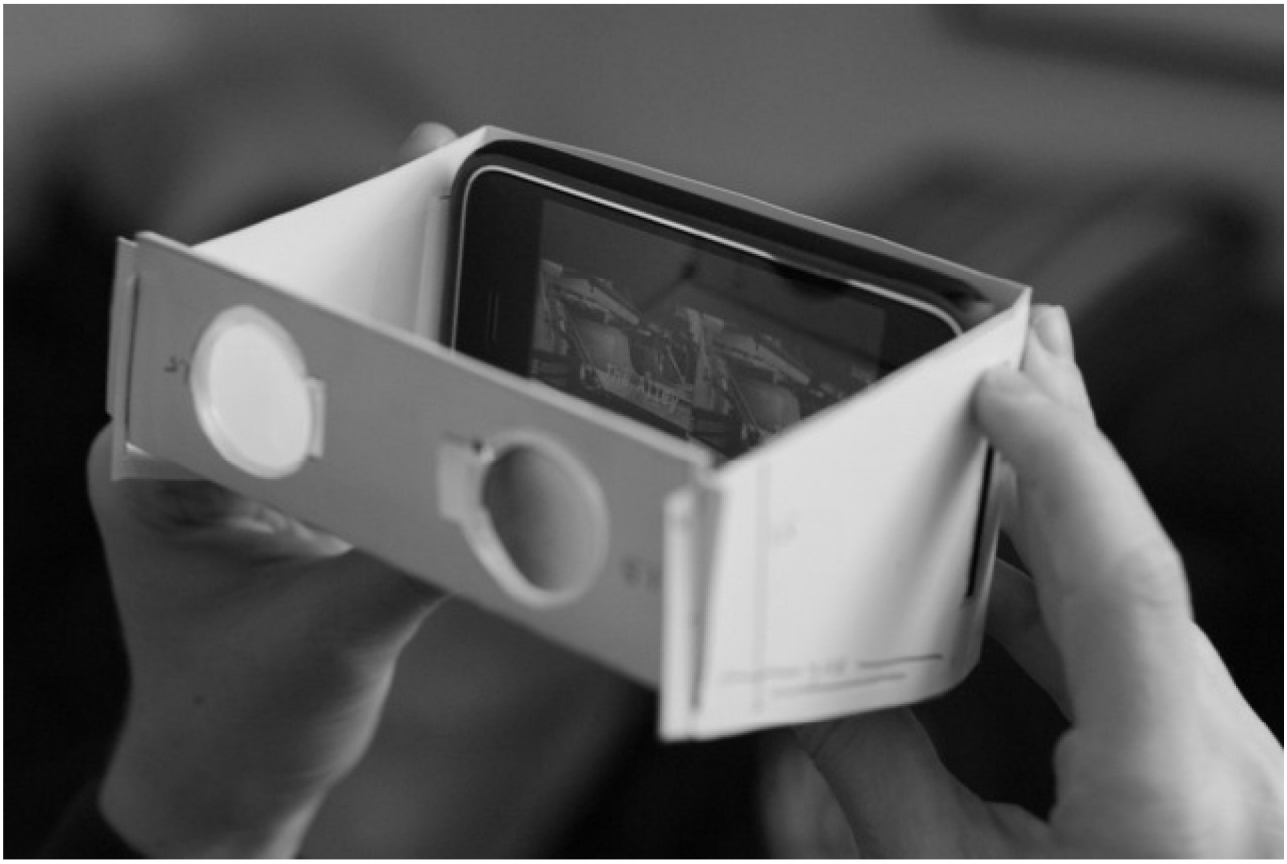


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