

# The Benefits of LensFree Printing

HumanEyes Technologies – Music for Your Eyes

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LensFree is a revolutionary method for printing 3D & 2D visual effect directly on acrylic or glass with no need to use special lenticular substrate.

LensFree allows for unique backlit applications that are both easy to produce and deploy as well as unique and crowd pleasing.

Izzy Bromberg  
Marketing Product Manager  
HumanEyes Technologies Ltd.



## Executive Summary

### Overview

As lenticular printing moves further and further into the mainstream, printers are searching for new and innovative ways to expand their offering and lower their costs. While much research has been done on reducing the cost of standard lenticular sheets – they remain somewhat expensive and not that readily available.

One new method represents a breakthrough in lenticular printing. This method involves printing the optical barrier directly on a clear piece of acrylic or glass. This barrier replaces the substrate with lenses that are used in traditional lenticular applications.

HumanEyes Technologies has released a new software add on called LensFree. LensFree is a new additional module within the HumanEyes PrintPro software to allow printers create stunning backlit applications – totally lens free!

With LensFree the lenticular image is then printed on the other side of sheet, opposite to the barrier.

LensFree not only replaces the need for a lenticular substrate – it also allows printers to create lenticular project in any LPI (Lenses Per Inch) they choose (to exactly support the unique parameters of each and any project) – as the barrier can effectively be any LPI.

## **Business Challenge**

As the lenticular printing business has evolved, one of the main business challenges has been in moving the creation and printing of lenticular projects out of the hands of experts or dedicated specialists into the hands of printers and creative professionals. Much success has actually been realized in this area. Today one can find many software applications that provide these basic features for printers and graphic professionals.

The success of the lenticular applications has spurred lenticular demand and has subsequently lead to work in tackling the next challenge – that of reducing the cost of the lenticular substrate and opening lenticular to a wider user base.

Today's lenticular substrate is quite expensive and requires a very specific manufacturing process. The lenticular substrate needs to be created at precisely the right LPI and pitch. Bear in mind, that printers will need various lenticular substrates with different LPI to complete different lenticular projects. This therefore requires a printer to purchase and maintain the necessary level of lenticular substrate inventory at various LPI in order to complete lenticular projects.

## Solution Description

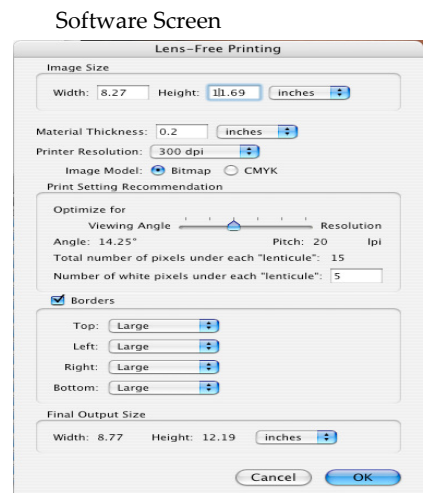
HumanEyes Technologies LensFree solution has risen to the challenge and has therefore moved one big step forward in the solution of this problem. LensFree allows printers to print directly on any clear acrylic or glass substrate. LensFree printing is a simple yet powerful add on to the PrintPro family. Using LensFree any printer can now produce stunning 3D & 2D visual effects for backlit applications – *with out the need of classical lenticular substrate.*

LensFree is an add-on to HumanEyes award winning PrintPro software line. LensFree is simple and straightforward to use. LensFree simplicity should not be mistaken for a simple product – LensFree provides printer with an incredible opportunity to create powerful backlit applications.

## Basic Workflow

The basic workflow is made up of three steps:

1. Create LensFree media (the optical barrier). This is done automatically by the software. Once you determine your optimal viewing angle – the optical barrier is created and ready for printing.
2. Print the optical barrier on one face of the translucent substrate
3. Perform optical pitch test. For best results we recommend a pitch test be performed for both 2D effects as well as 3D.





## The Benefits of LensFree™ Printing

4. Interlace and Print on the other face of the substrate.



### Solution Benefits

LensFree is a product that will pay for itself in no time at all. Not only does LensFree offer stunning application possibilities it is the right solution for the following reasons:

- Reduced cost of printing lenticular applications
- ROI is very immediate
- Reduces need for a large inventory of lenticular lenses at various LPI
- Simple to use
- Creates amazing effects for backlit applications.
- Very accurate and crisp effects.
- Enhanced effects for a longer viewing distance.

### Target Market

HumanEyes Technologies' LensFree solution is a versatile software, add on for HumanEyes PrintPro, that is very well suited for digital printers wishing to create backlit applications

Digital printers utilizing a flatbed press with UV curable inks can take advantage of what LensFree has to offer them. Now digital flatbed printers can expand their product offering, by completing backlit lenticular applications services. By the nature of the flatbed printer, not only will flatbed printers be able to create stunning applications at standard sizes – they will be able to offer lenticular applications that are very large format of tile applications.

Some possible applications are POP displays, in-store decoration, vending machines and backlit display commonly found in public transportation (mainly railway and underground stations and airports' advertising panels) fast food restaurants menus, interior decoration, etc. .



## Summary

Lenticular applications enjoy a growing popularity these days, both because of the amazing effects once can achieve with lenticular such as 3D and animation as well as the new software solutions that allow for easy and straightforward lenticular creation. These facts coupled with the amazing stopping power of lenticular applications has helped move lenticular more and more into the mainstream.


However, one recurring challenge with lenticular is the increased cost of lenticular substrate and the availability of lenticular substrate.

HumanEyes Technologies, the leader in software for the creation and printing of lenticular, has risen to the challenge with the introduction of LensFree.

LensFree is a groundbreaking application that allows printers to print directly onto acrylic and glass – *without the need for specially manufactured lenticular substrate!* With LensFree the lenticular barrier can be printed directly to one side of the acrylic or glass. The lenticular image is then printed on the other side of the acrylic or glass.

LensFree eliminates the need for maintaining an inventory of lenses. LensFree is simple, powerful and an add on to HumanEyes PrintPro product line.

To learn more see us at: [www.HumanEyes.com](http://www.HumanEyes.com) or contact us at:

 <b>HumanEyes International</b>  1-4 High Tech Village Edmond Safra Campus The Hebrew University, Givat Ram  P.O.Box 39063 91390 Jerusalem Israel  Tel: +972-2-651-8999 Fax: +972-2-6515188 Email: <a href="mailto:3d@humaneyes.com">3d@humaneyes.com</a>	 <b>HumanEyes US Office</b>  366 North Broadway - Suite 410-C1 Jericho, New York 11753 USA  Tel: +1 800 552 7344 Fax: (516) 908-7761 Email: <a href="mailto:3d@humaneyes.co">3d@humaneyes.co</a>
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