

BRIEF DESCRIPTION

DotLens is a lens made from polymer that turns any smartphone or tablet into a portable microscope that is capable of magnifying images up to 15, 40, and 120 times. This polymer contains a special hydrophobic and scratch resistant outer coating that will temporarily yet securely adhere to the camera surface of any mobile device.

MISSION

DotLens provides a quality lens that allows users to capture magnified high-resolution photos with any mobile device. We are dedicated to encouraging research and discovery through a compact product that provides a cost-effective and convenient exploration of the microscopic world.

TECHNOLOGY AND SYSTEMS

The process to create DotLens is a highly repeatable, lithography-free and mold-free method for fabricating flexible optical lenses by curing liquid polydimethylsiloxane (PDMS) droplets on a preheated smooth surface with an inkjet printing process. This method enables the fabrication of lenses with a focal length as short as 5.6 mm, which can be controlled by varying the droplet volume and the temperature of the preheated surface. The final product can be attached to a smartphone or tablet camera without any accessories and can produce high-resolution images for microscopy applications.

BUSINESS STRATEGY

DotLens is business to business as well as a business to consumer company. Our initial target market is the education system. Since the lens requires a smartphone device, we are primarily focused on the school districts that already provide these resources to every student. There are currently over 4.5 million iPads in over 1,200 universities and 1,200 schools in the United States. Our plan is to have DotLens bought by U.S. school districts for their students to implement the technology into existing curriculum. DotLens would provide a cost-effective alternative to traditional microscopes currently used in schools and increase student engagement by allowing every student to use the technology for exploration beyond the classroom. Furthermore, our next target would be individual classrooms and individual students.

MANAGEMENT

The managing partners are five students from the Wolff Center for Entrepreneurship in the Bauer College of Business at the University of Houston. The inventors of the technology are Dr. Wei-Chuan Shih, Associate Professor of Engineering at the University of Houston and Yu-Lung Sung, post-doctorate student for engineering at the University of Houston.

FINANCIAL PLAN

As the education system is our initial target market, we intend to start selling DotLens to school districts in classroom sets. Each classroom set will consist of 25 lenses, which is based on average classroom size. We are targeting two schools in 2015 to test in the classrooms in order to gain approval from the school boards of the Houston districts. We project to have two school districts purchase DotLens classroom sets for the entirety of their science departments by the end of 2016 school year.



Company Profile:

URL: <http://www.dotlens.net>
Industry: Optical Instrument and Lens Manufacturing
Founded: Spring 2015
NAICS Code: 333314
SIC Code: 3827

Address:

4800 Calhoun Rd.
Houston, TX 77004

Management:

Megan Ennis
mlennis@uh.edu
Melissa Jinks
mjinks@uh.edu
Mariana Solis
msolis8@uh.edu
Triet Tran
tttran60@uh.edu
Leopold Loving
lloving@uh.edu

Inventors:

Dr. Wei-Chuan Shih
Associate Professor for Engineering
wshih@uh.edu

Yu-Lung Sung
Post-Doctorate Student-Engineering
yulung@live.com

Investors: N/A

Competitors:

Micro Phone Lens
www.microphonelens.com
Carson
www.carson.com/accessories/smart-phone-adapters
Bodelin Technologies ProScope
www.bodelin.com/proscope

Patent:

In Progress