

# **PORTABLE RETINAL CAMERA**

3D VisionSoft is developing a *Portable Retinal Camera* as a low-cost tele-ophthalmology platform based on the Apple iPhone cell phone technology. This platform will provide instantaneous visualization of the retina to be used in both screening and follow-up examinations for the preventative diagnosis of impending disease states. Early intervention will lead to healthier lives and a reduction in vision impairment or blindness.

The iPhone hardware system will be augmented with custom software that runs on its powerful OS X (UNIX) operating system and empowered by the high-speed communications link to 3D VisionSoft servers that interpret and correlate the patient retinal images over time.

Initial applications of this system will be focused on the early detection of diabetic retinopathy, glaucoma, and the onset of systemic hypertension.

Software will support the use of the Portable Retinal Camera for home use, tracking the health of your retina and alerting you when you should visit an eye care medical professional.

#### Cell Phone Based Portable Retinal Camera

The initial application of this technology will be focused on the early detection of Diabetic Retinopathy. The retinal cameras currently being sold are very expensive and 3D VisionSoft believes that with the advent of advances in optics and the cellular technology, there is an opportunity to create an inexpensive, but highly powerful portable retinal imaging device. When this device is coupled with a strong image management system in conjunction with 3D visualization, retinal microvascular abnormalities can be detected effectively and efficiently. High speed communications provides the foundation for real-time collaboration with the medical community and service providers.

## Diabetic Retinopathy

The World Health Organization estimates that 135 million people have diabetes mellitus worldwide and the number of people with diabetes will increase to 300 million by year 2025. Almost 20 million Americans have diabetes and an additional 16 million working-age adults are pre-diabetic, meaning they are at a high risk of developing diabetes. Visual disability and blindness from diabetes have a profound socioeconomic impact. Diabetic retinopathy is the leading cause of new blindness in working-age adults in the industrialized world. It has been estimated that as much as \$167M and up to 85,000 sight-years could be saved annually in the US alone by improving screening methods for diabetic retinopathy. Public pressure to improve the management of diabetic retinopathy has increased substantially, compelling the

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#### **Features**

- Improved service offering to patients and referring ophthalmologists
- · Fits into existing workflow
- Lower costs than existing methods
- Easy to understand, implement, and monitor patient compliance
- Integrated program for diagnosis, treatment, and follow-up
- Cost containment by preventing serious complications

### **Portability**

- · Fits in a pocket
- Self-powered
- Operates worldwide
- Incorporates illumination source

### Connectivity

- · Instantaneously transmittable images
- WiFi connection to laptops
- Location aware

#### Solutions

- · Home health checking of your retina
- Screening for DR, glaucoma, and onset of hypertension
- Patient record information capture with text and audio

#### Outcomes

 Patient compliance is improved by bringing the camera to the patient



## Our Company

3D VisionSoft provides customized solutions in software for a variety of applications. We work for both clients as well as develop solutions that we think are needed in our complicated world. The applications that we choose are those that we view as having a strong impact factor, or sometimes just cool to have. Whether it's for a client or for us, we follow the basic principles set forth below.

#### Philosophy

The goal of 3D VisionSoft is to integrate various forms of technologies stemming from computer information services and custom software development to the basic science and medical fields. The company's values are based on strong working relationships with the clients, developing a level of communication, understanding, and interaction that engenders trust, integrity, and honesty. Projects are chosen that can make an impact on life in general by improving the quality of scientific and medical research.

#### Value Proposition

3D VisionSoft works with each client to understand his or her needs and concerns before taking on a project. The quality of the team interaction and the technology and software end product is the most important goal. We will efficiently evaluate client business requirements before recommending a software design solution. We will develop custom software and perform the software integration if necessary.

## Business Opportunities

3D VisionSoft also considers opportunities with novel and important applications in biotechnology and medical instrumentation and brokers deals with the investment community and the entrepreneurs.

#### Our Team

Our team consists of professionals who share a common goal of fostering a future generation of software intelligence. We are a family of like minded innovators, scientists, clinicians, engineers and experienced businessman focused on developing pragmatic products.

Client side (IOS iPhone, Android phone, IOS iPad, Apple, Windows, Linux), proof of concept modeling and 3D CAD/CAM modeling services are all performed in San Diego, CA, USA. Server side, algorithmic design and mathematical research, specifically in image processing, are carried out in Pune, India. The offices in Perth, Australia liaise with the business and investment arms, and also manage most of the clinical testing for medical applications.

# **Building Products**

At 3D VisionSoft, we can design/create full applications, either for internal use by you or your end user customers, or as actual commercial software products. Our product engineering encompasses the entire product development cycle from conceptualization to maturity. Proof of concepts help you visualize your product and test its basic premises. The development phase focuses on meeting your individual needs to be the best in class. We can bring value to your product by reducing the product release cycles, controlling costs and enabling market leadership through quality and innovation. In addition to the product, we can provide full documentation, technical guidance, and training if needed.

# **Providing Services**

At 3D VisionSoft, you can relax by working with us and letting us pull together our resources to help you support your investment in your business and succeed. We will do what it takes to establish and nurture a long-term relationship with you and work side-by-side with you before and after our working relationship so that you can continuously reap the benefits of our solutions.