



Letter from the Director

Thank you for your consideration of this investment proposal.

The project that I would like to introduce you to has been my primary passion since the idea came to me in 1994 after spending the best part of two days using a virtual reality system.

The experience both amazed and appalled me. It was certainly very powerful. I felt like I had truly seen a glimpse of the potential of VR, but there were a few kinks in the system to be ironed out. The most obvious and fundamental of these was that you couldn't just walk around in the virtual world. That would have caused you to be walking around the physical space, blind, with this thing on your head, while thinking that you were walking around in another world.



Clearly what is needed is a way to transfer your walking motion into the virtual world. A treadmill that you can turn corners on.

Since its initial conception, the device has been through a series of major changes and small refinements. The challenge was to create a solution that is compatible with the consumer market. An omnidirectional treadmill (several of which have been built for this purpose) would encounter serious friction as a computer peripheral, especially in the consumer market, and there had to be a better way. The major design innovation was to reconfigure the device as a pair of shoes... motorised roller skates, if you will, that are functionally equivalent to an omnidirectional treadmill.

The form factor of the VR Walker is

- a pair of shoe modules,
- a control unit worn about the waist and
- an external positioning sensor.



Information Memorandum

This new approach brings a host of advantages and enables to device to succeed as a consumer level product. It is now small, light, and portable, simple, cheap and manufacturable. It can be sold through existing channels and self-installed by the customer in their living room.

The consumer VR industry has been in hibernation since the late 90's, waiting for the technology to catch up with people's expectations. A new breed of tech entrepreneurs are bringing a new set of remarkable products to market at the moment, which is putting the need for a consumer level locomotion interface system such as the VR Walker into sharp focus.

Many of these new innovations are able to be used in conjunction with the VR Walker and, in several cases, incorporated into it to produce a turnkey immersive system with a huge amount of utility.

Please feel free to contact me with any questions that you may have.

Kind regards,

A handwritten signature in black ink, appearing to read 'Scott Phillips'.

Scott Phillips

scott@vrwalkerproject.com

Investment Highlights

\$30m - \$50m licence fee from the gaming industry

Our initial major milestone is a licence agreement with a major computer games console manufacturer. This will include an upfront fee on the licence which is likely to be worth several tens of millions of dollars. Comparable deals in this space have involved fees in this range. The licence by PrimeSense of their chipset to Microsoft for inclusion with the Kinect sensor for the Xbox 360 was facilitated by the payment of a fee of US\$30 million, plus royalties. Microsoft sold 8 million devices



in the first 60 days after release of the Kinect, for around \$120 a unit, totalling around US\$1 billion, which made the US\$30 million look like a steal.

The VR Walker is targeted towards a very similar market to the market for the Kinect technology, and we intend to pursue a similar strategy in getting it to market. Accordingly, we anticipate a liquidity event at a relatively early stage in the life of the project, that our early investors will be in a position to share in. The exact quantum of the licence fee is of course unknown at this stage, and will be a function of the negotiated royalty payments, among other things, but if we are able to present the opportunity as we intend then US\$50 million will be a good target to aim for.

Milestones Achieved to Date

Early seed funding

Granted US Letters Patent

Our early milestones have been the securing of pre-seed funding and the granting of letters patent in the United States. We raised AUD\$20,000 from a number of individuals, including Euan Hills, who at the time was the owner of the Computerland franchise in Hobart, Duncan Kerr MHA, then a member of federal parliament. I was working at the time with a business mentor, Ian Cantlay, who was most helpful in guiding the early strategic planning of the project and who also has an equitable stake in the project. Most of the early funding was spent securing the patent, which was granted in 2000.

Market Overview

The consumer VR industry has been in hibernation since the late 90's, waiting for the technology to catch up with people's expectations. A new breed of tech entrepreneurs are bringing a new set of remarkable products to market at the moment, which is putting the need for a consumer level locomotion interface system such as the VR Walker into sharp focus.

Gaming

The main problem was the poor quality of the existing head mounted display (HMD) hardware. The devices were huge and heavy, low resolution, expensive, and suffered from noticeable lag in the motion sensing. Games console manufacturers flirted with the idea, but no one was prepared to risk building a system around such obviously awful gear.



The situation today is different, and changing rapidly.

In addition to the advances in the capabilities of graphic engines and data networks, a new breed of virtual reality technologies are bringing a new level of interaction and fidelity to the experience of virtual worlds. Consumers are about to see:

- the [Leap Motion](#), which lets you do touch screen style interaction without touching the screen, with amazing accuracy,
- the [Oculus Rift](#); a head mounted display with a wide field of view and almost no perceptible lag. This device is being supported by the who's who of the computer gaming industry, including John Carmack of id Software, makers of the Doom and Quake game franchises,
- the [Matterport](#) 3D scanner, that enables rapid construction of virtual environments from real life environments.

Devices such as the Wii controller and the Kinect sensor have demonstrated a clear trend towards greater bodily interaction with computer gaming systems, and the gaming industry is in turn searching for new ways to satisfy this demand with saleable products. There is now an expectation that immersive VR will be an important feature of future gaming consoles. Gaming market analysts expect the next generation of computer games consoles from the three major industry players (the Xbox, Playstation and Wii) to sell over 200 million units between them.

Simulation Training

We believe that the computer gaming market is, initially, the best way for us to establish the VR Walker as a useful peripheral device for intuitive navigation of virtual worlds, but it is not the only market.

Training systems are a huge market, and the prospect of the availability of a portable locomotion interface system such as the VR Walker is of interest to people in this industry.

Quotes:

Thanks for getting in touch with us about this exciting project.

I've discussed your project with Bruce and look forward to where it could lead in the future.

Combined with the Oculus Rift it could certainly provide a very convenient, immersive experience for people, replacing current desktop training methods.



The main role we serve within Mines Rescue is to implement technology to enable them to reliably provide world's best training within the coal mining and similar industries. I look forward to where this project could end up and hope to follow your progress.

Matthew Farrelly – Technical Manager – VRT Coal Services Pty Limited

I believe that the VR Walker would address the challenge of size and cost and offer Invensys a solution that we could bring to our market. As with other new technologies out there we do look to get early developer versions to test with our EYESIM solution therefore please keep us up to date with your development program.

Peter Richmond – EYESIM Product Manager – Invensys Operations Management

Virtual training has many advantages across a range of industries. Emergency services, for instance, can train people to respond to dangerous situations without exposing the students to actual danger. Tradespeople can be trained to operate dangerous or mission critical equipment without any downside risks. Mining companies can train new workers in mine site protocols and equipment operation without the need to interrupt production.

Other application areas have opened up over the last few years as well, such as virtual golf (which is huge in Asia) and immersive teleconferencing (also known as "beaming"). These are good examples of applications that currently do not involve simulated walking but which will be made more realistic and engaging by its availability.

Expansion Plans

*Finalise demonstrable prototypes
Remove the technical risk from the project
Market the IP to potential OEM licensees
Licence the technology to OEM's in various markets*

In order to achieve our overarching goal of licensing the IP into the various markets we are committed to achieving the following:



We need to complete the working prototypes. We are well on the way towards this. The mechanical engineering is being done in consultation with a firm of machinist engineers (Bredo Mators Precision CNC). In addition, we are iterating the design using a 3D printer that we have acquired for the purpose. Once we have a mechanically functional device we will begin the control system engineering in earnest. We will then need to add control system engineering to our talent base.

A further goal is to remove the technical risk from the project. We have an arrangement with the Director of the Centre for Intelligent Systems Research (CISR) attached to Deakin University in Geelong, Professor Saied Nahavandi, who is willing to undertake the engineering required to ensure that the device is capable of performing reliably over the long term. They will supply five robust working prototypes that we can demonstrate to the target licensees. They are asking for \$250,000, which may or may not be good value for money. There is however a government program for exactly this amount which requires a 20% cash contribution (i.e., \$50,000) called the Technology Voucher Program (TVP), which could sweeten the deal significantly. These grants are highly competitive, but venture funding from local sources would likely help smooth the way.

Once we have prototypes that are able to withstand the rigours of everyday use we will market the device to prospective licensees.

The first step towards this will be to establish our device as the standard locomotion interface for consumer applications. A crowdfunding campaign is likely to be a useful method of getting our device into the hands of developers, particularly if we are able to attract some high-profile strategic investment from major games developers or similar sources. This is the path very successfully taken by Oculus for their Rift device, and it is entirely probable that we can take a similar path with similar results.

Key Success Factors

Our ability to deliver a working device is clearly going to be the key indicator of success for this project. We have identified what we believe to be the most efficient and effective method of constructing the device and that approach is being borne out by the progress that we have made to date with modest funding.

On the technical front, our goals are to achieve a low-latency response from the system and to restrain the user to within 100mm of their original location over extended periods of operation.



Risks

There is a risk that someone will come up with a better way of solving this problem, but I consider this to be marginal. In terms of market acceptability, lightweight, portable, inexpensive, easy-to-install-and-operate shoe modules are going to be hard to beat.

There is a risk that someone will emulate the device and try to cut into our market space. We need to move quickly and to get our SDK into the hands of games developers and enterprise VR system integrators. We have granted letters patent in the US, which, at the very least, enables us to assert the right to commercialise the idea.

The risk that we are primarily concerned with is user safety, and also the perception of safety. The device removes friction between the user and the ground, but it does so quite selectively. During normal operation the wheels all point in one direction, so in a worst case scenario the most simple incarnation of the device will operate like conventional roller-skates, albeit with the wheels pointing in an arbitrary direction. Most users will likely be quite able to maintain their footing should the device suddenly lose power, and walk relatively normally wearing the modules. In addition, we plan to design a mechanical brake into the modules that will engage should the device lose power. This will help to ensure that the device presents no safety risk to the user if it fails.

Team

Investment Offer

In addition to the huge amount of work that I have committed to the project over many years, we raised in the order of \$25,000 previously and now seek a further \$50,000 in order to complete the prototypes.

We are offering a 10% equity stake in the project for an initial investment of AUD\$50,000, with a right of first refusal on subsequent funding rounds.