Virtual Herder Business Plan Summary

Idea & Product

Disease, injury, predators and theft are the biggest problems that face livestock farmers in South Africa. Monitoring the vital signs, movement and location of livestock can drastically reduce losses as well as improve the productivity of livestock farming.

Virtual herder consists of collars and/or ear tags that will monitor the body temperature, heart rate, physical activity and GPS location of livestock. This will allow the farmer to:
- Identify sick livestock through body temperature and activity levels
- Detect theft and predator threat through heart rate, location and activity
- Identify when female animals are in estrus due to increased physical activity
- Find lost livestock

Target Market

The Virtual Herder system will be initially be targeted at small and large scale livestock and game farmers, especially those affected by predators and regular theft. Farmers will to participate in testing have already been identified.

Competition

There are multiple products targeting the same market, but with limited capabilities. Virtual herder is the first product to combine location, activity, body temperature and heart rate into a single sensor. Most of the existing products use older, more expensive technologies. Virtual Herder aims to drastically decrease cost while increasing capabilities by leveraging modern fast advancing hardware and software technologies.

Goals

The goals for Virtual Herder are as follows
1. Complete prototypes
2. Test and refine the system through rigorous field tests during fire season
3. Secure startup funding
4. Expand team
5. Select clients to implement pilot installations to do final assessments and receive feedback
6. Establish manufacturing, customer support, sales, marketing and distribution structures

7. Launch product commercially, build and expand client base through various marketing strategies

Marketing

Marketing will be done through the following avenues
1. Directly contacting potential client in identified high risk areas in installing small demonstration systems to proof the viability.
2. Advertising and promotional articles in established publications like *Farmer's Weekly.*
3. Product website and advertising on agricultural focused websites
4. Trade show stands

Sales

Sales will be done through multiple avenues. The product will be sold in agricultural retails stores and online stores. Sales representatives will be used to introduce and sell the product to groups of potential clients in new areas.

Operations

Product development, customer service, final QC, assembly and packaging will be done in house. The following personnel will be required:
- Electronic engineer
- Software developer
- Business Manager
- Administrative person
- Sales representatives for sales and customer service
- Semi skilled workers for production

A large number of electronics suppliers are available for the required components. Production and assembly of the electronic PCBs and enclosures will be done by third party companies. A local PCB production company, as well as a injection moulding company has been identified that can handle production. An alternative is to outsource both these rolls to companies in China.

Start-up Team

Most of the initial product development and testing can be done part time by a two-man team. I am a mechanical engineer with background in research and development, and a interest in electronics and agriculture. A electronic engineer has recently been recruited to form the initial development team.

Startup Funding

The total required funding has not yet been estimated. Initially at least $5000 in development funding will be required to complete product development before final testing with commercial clients.