

A Multi-Reality Aerosport Investor Presentation

## Who:

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Kyle Blemel

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## What:

Skychicken

Virtual Reality Game

Hardware\Software Brain

Hardware\Software Body

Future drone projects

## Where:

Virtual\Augmented Reality

## Why:

Save the world, make cool stuff.

## How:

Individually funded projects

Multi-industry combinations

Constant self re-evaluation



# 10005 Mission Design

## What is Mission Design?

## Mission:

When aircraft designers design a plane, it is a response to a specific **mission definition**.

## Maneuverability:

How tight can it turn? How fast can it change its velocity?

## Efficiency:

How long can it loiter in a certain area? How much fuel does it burn to get to that area?

## Safety:

What are the precautions taken for the bystander and operator?

## Cost:

How much is reasonable to expect for a given set of inputs?

**Required Training:** How hard is it to fly?



**Quadcopter Design Analysis:** 

**Mission:** Observation and Resarch

## Maneuverability:

Best choice when quick and precise spatial translations are required.

## Efficiency:

Held aloft by thrust alone means perpetually less endurance.

## Safety:

Zero power failure mode is to fall out of the sky. Literally the most unsafe configuration.

## Cost:

Many individual electronic and molded parts requires significant investment per unit to increase performance.

**Required Training:** Several hours for safe flight.



Parafoil Design Analysis:

**Mission:** Observation and Research

## Maneuverability:

Best choice when object to be observed is a fixed point with a clear radius around it.

#### Efficiency:

Lack of structure requirements and lightweight wing mean it's very easy to pack it full of batteries.

### Safety:

Zero-power failure mode is to drift gently back to Earth.

## Cost:

Minimal lift structure and fewer electronic components means greater cost/benefit ratio.

**Required Training:** A few hours. NASA X-38 Crew Return Vehicle Used the largest parafoil ever made to slow and steer the research vehicle during its return from up to 45,000 feet in the air.

## The SkyChicken

**Mission:** Observation and Research

## Target Markets:

Professionals, hobbyists, amateurs in the entertainment, sports, law enforcement, surveying, exploration wildlife conservation, etc.

## USP:

Extreme endurance vs. quadcopters Simple to set up and fly Safe over crowds Low cost

**Design:** Soft foam body means potential damage is limited.

**Cost:** \$450 per unit, starting at \$700 w/2 onboard cameras.

**Required Training:** A few hours.





Potential Use Cases: Skycam for major and little league games, beaming live footage to iPads and screens located on the field.



Year One:	Kickstarter		
Skychicken Brain Fundraising Kickstarter runs Body Video Game Development Eval Time			
Year Two: Timeline	Hin help to ner	nga orlina businas	
Year Three:			

# Skychicken funding timeline

\$97,500	S	5177,500 - - -	Funds required for development & launch: \$275,000 Second year operating cost: \$217,500 Total investment required: \$492,500
Year One:	Kickstarter		
Skychicken Brain Fundraising Kickstarter runs Body Video Game Development		Maybe contract o eff - Seblact \$75(00)	
Eval Time Year Two:			
	Hits halp to mar	nga orina businasi (	
\$217,500			

#### Time Required To Recoup Initial Investment



## Other Missions:

News reporting

Sports broadcasting

Firefighting

...and more!

Long loiter time makes it the perfect camera platform for a brand new spectator sport using drones.



# What is Skykick?

Iculus VR

HD Prototype

The Skykick game is played either using augmented or virtual reality.

In it, players (pilots) fly either physical drones or virtual representations of those drones in fun and exciting-to-watch games or tournament-style events.

It is a boot-strapped approach to affecting large scale change in the aviation, VR, and hobby industries.

It is an approach where multiple industries are combined to form a larger one.

# Why the game?

Value-add for long term growth of the company, by doubling potential revenue streams (VR and drones).

Safe training for existing and new pilots.

Value-add for investors because it builds a core platform with which to bridge to and from other opportunities.

Connects traditionally unrelated consumer groups (pilots, gamers, hobby kit builders) that nevertheless share commonalities, to create a larger potential for growth.

# How does it work?

The "Brain"

A combination IMU/radio unit.

I - Inertial

M - Measurement U - Unit

Used to stream raw data regarding the drone's position, heading, altitude, etc. to a ground receiver. The "Body"

An integrated computer unit (such as a laptop or smart phone), built to receive, process, and broadcast radio commands, flight data, and pilot commands.

This computer should be portable and durable, able to be carried to on-field locations.

## The "Eyes"

Consumer virtual reality goggles that connect via a common interface (USB/HDMI) to the "body".

Information for the game (score, goals, etc) is overlayed on top of live or simulated video footage and integrated flight displays via the IMU.

# What will you need to play?

Physical:

Two or more R/C aircraft with at least one onboard camera and the Skykick "Brain".

Two or more pairs of VR goggles.

A gamepad, mouse, or joystick device, or standard hobby radio controller.

A laptop or smart phone.

Host software on the laptop to monitor all the aircraft currently playing.

Virtual:

A gamepad, mouse, or joystick device.

An installed copy of the game. Platforms TBD.

A pair of VR goggles (optional but recommended).

How is it Consumed?

Special Events

Fairgrounds

Airshows

Virtually: Anywhere



Creative and fun gameplay design

Exciting data driven displays

Otherworldly imagery

Strong multi-disciplinary foundation

## **Our special sauce**



Game modes

Tool concepts

Game Assets

**Trailer Animatic** 

Story

Control Methodologies

# Who is Skykick's target market?

Top down view, Game + Skychicken + Other drones, brain, etc;

Gamers - \$15.4b in video game sales for 2013 (statista.com)

AR/VR enthusiasts - \$1.06 billion by 2018 (Markets&Markets)

"Traditional" Hobbyists - Radio Control sales in 2012 were ~ \$260 million (Hobby Manufacturer's Association)

Professionals + Large Entities - B&H in NYC sells 200+ Phantoms a day (Motherboard), at least 12% of \$98 billion worldwide will be for commercial drones (Business Insider)

# **Existing Interest**

Average funding for drone-related Kickstarters: \$90,000

Outliers as high as \$900,000.

Space/Aviation related Kickstarter games average \$20,000 per project.

RSI has managed to raise +\$50 million for its space game through its own channels.



Major League Gaming Viewership

Year Source: Major League Gaming

# How do we profit?

In-game microtransactions

Aircraft sales

Equipment, starter kits, etc.

Industry sponsorship deals

Ticket sales at sponsored events

# Who are we?



Shawn O'Neil



Kyle Blemel

Leslie Minasian



Take the concept of personal flight to a new level

Educate the public and sustain/grow the "Maker" movement

Develop the foundation for future remote sensing technologies related to space exploration & solar body mineral extraction

Machine intelligence

# **Questions?**

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