Welcome!
Hi, I’m Joey!

Community Builder
Entrepreneur
Falafel Connoisseur

Joseph.Arora@gmail.com
Hi, I’m Austin!

Air Force Acquisitions
DTRA Innovation Scout
Hot Air Balloon Pilot

keriann.a.delorme@gmail.com
What will you do in the next 48 hours?
Work with interesting people and **solve important problems** for our operators
Roadmap

Wed Morning

- 120 sec Pitches
- Vote
- Form teams

Brain Dump

- Problem Curation
- User Discovery
Wednesday Afternoon

- Market Research
- Start Building MVP
- Customer Validation

ITERATE
- MVP Definition
- Recap...
Venue Logistics

Bathrooms: TBD

Hours: 7:30 AM to 5 PM

Need help?
Call 911 or call/text us at 720-235-8045
Or 585-739-9769

Going Secure?
Talk to a facilitator
Secure Rm: NO ELECTRONICS ALLOWED
Rock < Paper < Scissors
Our mission is to teach & enable modern tactics in innovation design and rapid fielding with our CWMD champions.
Why you’re here!

Rapid Capability Development & Fielding

Driving Innovation

Applying a new approach to your program
This Place is Safe

We want to give you the best experience possible. To do that everyone needs to treat each other with respect.

Be mindful of others’ experience. Act professionally and treat the facilities with proper care.

We are all in this together.
Schedule
**Wednesday**

0730 Breakfast/Coffee

0800 Opening Comments

0815 Intro/Icebreaker

0900 Pitches & Team Formation

1000 Overview of VP
   Canvas/Archetyping

1030 Define problem/Archetyping

1130 Working Lunch –Support Tool
   Briefs
   MD5; RTI; AZURE

1230 User Discovery

1400 MVP Concept

1430 MVP Development & Testing

**Thursday**

0730 Coffee shows up

0800 Program Plan Overview

0830 Program Planning

1000 Putting it all Together (MMC)

1030 Pitch Overview

1100 Pitch Building

1100 Lunch Arrives

1400 Pitch Practice/Feedback Sessions

1545 Tech Check

1615 Pitching

1715 Closing Comments
did your team get out and talk to users?

are you actually solving a problem?

have you identified your assumptions?
do you have an **mvp or prototype**?

how mature is your **concept**?

**design matters!**

does your solution make sense to your user?
Mission
Model

are you solving a problem? (value proposition)

how do you plan on executing?

is your idea unique?
Opening Pitch
1. get in line to pitch

2. 120 sec pitch on stage

3. tell the team the name of your idea
   super important!
FAQ

Q: Can I pitch more than one idea?
A: No, pick your favorite, unless you can clone yourself.

Q: If my idea gets selected, will I get funding?
A: Maybe! That decision will be made following your final pitch!

Q: What if my idea isn’t selected?
A: We encourage you to continue to participate & learn by joining another team!

Q: Can I still work on my idea if it’s not selected?
A: Yes, ONLY IF you have more than three other people on the team.

Q: Can I use any pitch props, slides, etc when pitching?
A: Props are ok, but slides are not. Remember it’s short!
Anatomy of a Pitch
hi, I’m [name]!
the problem I want solve is [problem].
my proposed solution is [solution & technical overview]. (60 seconds)
to do this, we’ll need [team, resources].
let’s rock this week
Example Pitch!
Time to Pitch!
time to vote

still need technical folks!

I’ve got icecream!

Vote for my idea!

Let’s rock this!

You got my vote!
time to form teams

still need technical folks!

i’ve got icecream!

join my idea!

let’s rock this!

you got my support!
Archetyping! Who are your users? Who are your key Stakeholders?

To Do’s Today

Fill out value proposition canvas(es) – go over with Austin or Joey

Write down your final problem definition & your proposed MVP.
Total IEDs Targeting Dismounted Forces

Dismounted Patrol
Total IEDs Targeting Dismounted Forces

- U.S. Began Developing Tech Solution
- Tech Solution Fielded
- 328 Casualties
Trying to solve this problem…

Why Only Marginal Improvement?

…With a solution for this

J.S. Began Developing Tech Solution

Tech Solution Fielded
DESIGN THINKING DISCOVERS CUSTOMERS

- Define the Challenge
- Observe People
- Form Insights
- Frame Opportunities
- Brainstorm Ideas
- Try Experiments
- Pivot / Persevere?
- Build
- Iterate
- Measure
- Learn

CUSTOMER PROBLEM

CUSTOMER SOLUTION

DESIGN THINKING

LEAN STARTUP

AGILE
AquaLink 101
Sponsor: Navy Special Warfare Group 3 - SEAL Delivery Vehicle Team 1

Week 1:
Provide real-time vital monitoring and capture data to solve long-term health problems for divers

Week 9:
Improve the operational effectiveness of divers through enhanced geolocation and communication capabilities

Pivot or Proceed?

<table>
<thead>
<tr>
<th>Type of Need</th>
<th>Geolocation</th>
<th>Vitals Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need</td>
<td>This is the most immediate and active need; the most often mentioned pain point</td>
<td>This is a latent need that the divers are unaware of, and a passive need of the Medical Dive Officers, and an active need of Researchers</td>
</tr>
<tr>
<td>Beneficiary</td>
<td>Divers, Dive Officers</td>
<td>Researchers, Dive Officers, Divers, Department of Navy, VA</td>
</tr>
<tr>
<td>Realistic Goal</td>
<td>A workaround that will function within specific limitations</td>
<td>A working minimum viable product that demonstrates proof of value and aggregation of sensors</td>
</tr>
<tr>
<td>Mission/Achievement</td>
<td>Wholesale adoption within SDV, employment throughout broader NSW community, limited commercial opportunities for recreational divers</td>
<td>Adoption within SDV, employment throughout NSW, DoD ISOT elements, limited application within commercial dive sectors, athletes, etc</td>
</tr>
</tbody>
</table>

DESIGN THINKING + LEAN + AGILE

Explore the problem  Build the right things  Build the thing right
Archetypes

For each beneficiary identify:

- Who they are
- What they do
  - Facts
  - Philosophies
  - Behaviors
- Needs & Goals
Customer Archetype

- Male, age 21-32
- Competitive, driven, physically fit, **mentally resilient**
- Volunteers to join the Navy; spends 2-4 years training
- Volunteers to become a Navy SEAL; spends 1.5-2 years training
- Volunteers to join SDV; spends an additional 3-6 months training
- Driven by **problem solving** and **technical** mastery
- Not naturally focused on the long-term health impacts
- Highly specialized; **constant pursuit of optimization**
The Value Proposition Canvas

Value Proposition

Customer Segment

Gain Creators

Products & Services

Pain Relievers

Gains

Customer Job(s)

Pains

Copyright Business Model Foundry AG
The makers of Business Model Generation and Strategyzer
The Value (Proposition) Map describes the features of a specific **value proposition** in your business model in a more structured and detailed way. It breaks your value proposition down into products and services, pain relievers, and gain creators.

The Customer (Segment) Profile describes a **specific customer segment** in your business model in a more structured and detailed way. It breaks the customer down into its jobs, pains, and gains.

---

**Gain Creators** describe how your products and services create customer gains.

**Gain** describe the outcomes customers want to achieve or the concrete benefits they are seeking.

**Pains** describe bad outcomes, risks, and obstacles related to customer jobs.

**Pain Relievers** describe how your products and services alleviate customer pains.

**Customer Jobs** describe what customers are trying to get done in their work and in their lives when dealing with a problem or challenge.

---

This is a list of all the **Products and Services** a value proposition is built around.
AquaLink Value Proposition

Gain Creators
A device that enables the SDV/dive pairs to:
1. Obtain absolute location
2. Obtain comms link
3. Locate objects or the SDV

Products & Services
A small form factor, easily deployable and retrievable buoy with GPS and satcom capability
A set of beacons that will allow divers to hone in on something

Customer Jobs
Complete assigned mission within time constraints

Pain Relievers
An easily accessible GPS fix
An easily accessible satcom network between dive pairs, SDV, and C2 node

SDVT-1 Diver

Gains
Enhanced situational awareness of location of self and others on-demand with minimal exposure
Find the SDV or an object more quickly and with more accurate tools

Pains
Time spent lost
Difficulty of finding objects or the SDV underwater in poor visibility
Avoidable incomplete missions due to lack of a convenient comms channel for C2 node to update SDV/divers and adapt plan of action on the fly
Time to Work!

We are here to help guide you.
What questions do you have?
User Discovery

Form **Hypotheses**

Determine how to **test** your hypotheses

Be honest & open-minded

**GET OUT OF YOUR OFFICE!**

### Customer Discovery

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Experiments</th>
<th>Results</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dive health concerns are a top priority for both divers and the administration/researchers</td>
<td>Talk to both Admin and Divers about their view of the problem</td>
<td>Admin/commanders are focused on long-term medical issues while divers are focused on short-term mission success</td>
<td>View of the problem as both chronic (long term health) and acute (short term safety and communication)</td>
</tr>
<tr>
<td>The vitals specifically requested through the requisition are the only vitals desired/needed</td>
<td>Talk to Navy Medical Dive Officers</td>
<td>Pending</td>
<td>Scheduled interview with Dr. Karen Kelly, physiologist at the Naval Health Research Center</td>
</tr>
<tr>
<td>The Dive Computer’s (a) location of placement and (b) display size are the points of largest concern to the operators</td>
<td>Create a Smartphone Display with Requested Vitals and Dive-Specific Data</td>
<td>Pending</td>
<td>Pending</td>
</tr>
<tr>
<td>Communication and geolocation will be secondary to diver health concerns and will not be a major focus/priority.</td>
<td>Ask divers (military/academic) about what they saw as the main problems that divers are concerned about.</td>
<td>Communication is more important to the divers than the long-term health concerns, they are focused on short-term mission success.</td>
<td>Ensure that we are catering to the end user’s needs and not just the dive physicians or HPRC. Find experts in this field to interview.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Geolocation is a big problem in terms of reliability, accuracy, and user ergonomics. Potentially a tactical problem as well.</td>
</tr>
</tbody>
</table>
Time to Work!

We are here to help guide you.
## Mission or (“problem”) description

The value you are creating for the sum of all of the beneficiaries / the greater good.

## Beneficiaries

Mission models are always multi-sided markets with the goal of not just building a great demo but getting the product adopted and deployed.

## Key Partners

What can be outsourced or contracted outside of your program team?

## Key Activities

What are the unique activities your program needs to deliver the value proposition?

## Key Resources

What resources does your team need to own internally?

## Value Propositions

For each beneficiary – what is the value proposition?

## Channels

How will we deploy it to widespread use to the people who need it?

## Deployment

How will we deploy it to widespread use to the people who need it?

## Mission Budget (or Cost)

Understand the amount and color of money for your budget.

## Customer Relationships

Buy in/ Support

Whose is needed? How to get beneficiaries to buy-in?

## Revenue Streams

Mission Achievement

The value you are creating for the sum of all of the beneficiaries / the greater good.
### Mission Model Canvas

#### Key Partners
- Problem sponsors: Navy Special Warfare Group 3 (NSWG-3), U.S. Special Operations Command (SOCOM)
- Commercial partners: mil-spec dive equipment manufacturers

#### Key Activities
In order of priority:
1. Provide location to the SDV
2. Provide comms between the SDV and C2 node
3. Provide similar location + comms capability to dive pairs

#### Value Proposition
Provide greater situational awareness for SDVT-1 with a mechanism for the SDV to obtain absolute location and comms while staying underwater and minimizing exposure.

**Option 1:**
Provide a more accurate mechanism for divers to locate the SDV and/or locate deployed objects more efficiently and reduce lost-time.

**Option 2:**
Record diver location history and make it available for post-dive analytics to aid intelligence generation.

#### Buy-In / Support
- **Who:** SDV SEAL Divers
- **How:** Commander of NSWG-3 approves if long-term internal funding is not needed, otherwise Commander of NSW needs to approve

#### Key Resources
- Defence procurement expertise: course staff, sponsors, DIUX, liaisons
- User expertise: military divers, commercial/scientific divers

#### Deployment
**Follow the process:**
- SDVT-1 NSWG-3/NWP CDR create ODR
- N7 drafts CDD
- J4 will select office to lead the charge
- NSO/CMS field test, third-party labs certify
- JB creates official requirements
- HQ approval funding

#### Beneficiaries
- **End Users (Divers):**
  - LT Scott Terry, SDVT-1
  - LT Derek Shima, SDVT-1
  - Other SEALs
- **Influencers**
  - LT Jordan Spector, SDVT-1
  - Master Diver, SDVT-1
- **Decision Makers**
  - CAPT Travis Schweitzer, NSWG-3
  - REAR ADM Brian Losey, NSW

#### Mission Budget
- Hardware/software prototyping costs (RDT&E from SOCOM)
- Purchase of existing products on the market for evaluation (NSWG-3 or NAVSOC N-8)

#### Mission Achievement Factors
1. **Feasibility:** At the end of the quarter, SDVT-1/NSWG-3 decide that our proposal merits further development and initiates their internal processes for funding/pilot testing/field deployment i.e. creating the ODR
2. **Performance:** Our prototype should demonstrate that all critical features can be integrated within given size/weight/cost specs
3. **User satisfaction:** Seamless integration into current SOP, increased situational awareness
## Mission Model Canvas

### Key Partners
- SOCOM: Provide funds
- NextFlex: Materials Supplier
- Stanford PRL/AOERC: Enable manufacturing and testing
- Problem sponsors: Navy Special Warfare Group 3 (NSWG-3), U.S. Special Operations Command (SOCOM)
- Course Faculty and Staff, DIOX, Military Liaisons

### Key Activities
- Conduct Customer Discovery
- Outreach to key partners
- Design and Manufacture MVPs
- Test MVPs for functionality and with customers
- Obtain approval by Navy

### Value Proposition
- NSWG: Provide greater situational awareness for SDVT-1 with a mechanism for the SDV to obtain absolute location and comms while staying underwater and minimizing exposure.
- Research Entities: Provide a periodic check in from equipment placed in the field.
- Commercial Divers and Fishing: Enable the location of assets.
- Tourism Divers: Find lost tourists or have an automatic location check in.

### Buy-In / Support
- NSW: Commander of NSWG-3 approves if long-term external funding is not needed. Otherwise, Commander of NSW needs to approve
- SWG 3
- Decision Makers: NSWG-3, NSW

### Key Resources
- Finance: Funds for MVP creation
- Supply Chain: Resources for manufacturing
- Physical: Manufacturing facilities, testing facilities
- Human: Advisers for guidance on process, military expertise, operator knowledge network to support MVP enablement

### Mission Budget
- Hardware/software prototyping costs (RDT&E from SOCOM)
- Purchase of existing products on the market for evaluation (NSWG-3 or NAVSOC N-8)

### Mission Achievement Factors
1. **Feasibility:** At the end of the quarter, SDVT-1/NSWG-3 decide that our proposal merits further development and initiates their internal processes for funding/pilot testing/field deployment (i.e., creating the ODR)
2. **Performance:** Our prototype should demonstrate that all critical features can be integrated within given size/weight/cost specifications.
3. **User satisfaction:** Seamless integration into current SOP, increased situational awareness.
4. **Increase GPS Capabilities:** Reduce the time it would take for the diver to get a GPS fix 500% increase in efficiency.
Mission

The Business Model Canvas

Mission or (“problem”) description

Mission Budget (or Cost)
Understand the amount and color of money for your budget

Mission Achievement
The value you are creating for the sum of all of the beneficiaries / the greater good.

Beneficiaries
Mission models are always multi-sided markets with the goal of not just building a great demo but getting the product adopted and deployed.

Key Partners
Who are our key partners? Who are our key “regulators”? What key resources are we acquiring from partners?

Key Activities
What are the unique activities your program needs to deliver the value proposition?

Key Resources
What key resources do you need to deliver the value proposition?

Value Propositions
For each beneficiary – what is the value proposition?

What problem (pain/gain) does this solve for them?

Customer Relationships
Buy in/ Support
Whose is needed? How to get beneficiaries to buy-in?

Channels
Deployment
How will we deploy it to widespread use to the people who need it?

Customer Segments

Cost Structure

Revenue Streams
Time to Work!

We are here to help guide you.
Minimum Viable Product
HOW TO BUILD A MINIMUM Viable PRODUCT

The Wrong Way

1  2  3  4

The Right Way

1  2  3  4
Minimum Viable Product

Testing Goals
- What data do divers need?
- How do they want it conveyed?
- What do they want it to do?

Hypothesis

Navy Divers need an integrated platform that acquires and displays important real-time data in an easy-to-read manner.

Data Expected
- Good, but what do I need to support this device?
- I don't think it will survive under the operating conditions.
- Can we add XYZ variables and communicate with other divers?
Welcome Back!
Program Planning

What will it cost? ("mission cost")

How are you going to execute? ("deployment")

Who will be involved? (key partners)

What resources do you need to accomplish it? (key resources)
<table>
<thead>
<tr>
<th>Mission or (&quot;problem&quot;) description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beneficiaries</strong></td>
</tr>
<tr>
<td>Mission models are always multi-sided markets with the goal of not just building a great demo but getting the product adopted and deployed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mission Budget (or Cost)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the amount and color of money for your budget</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Key Partners</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>What can be outsourced or contracted outside of your program team?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Key Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the unique activities your program needs to deliver the value proposition?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Key Resources</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>What resources does your team need to own internally?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Value Propositions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>For each beneficiary – what is the value proposition?</td>
</tr>
<tr>
<td>What problem (pain/gain) does this solve for them?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Channels</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we deploy it to widespread use to the people who need it?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Buy in/ Support</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Whose is needed? How to get beneficiaries to buy-in?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Deployment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we deploy it to widespread use to the people who need it?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Customer Relationship</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we build relationships with our beneficiaries?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Customer Segments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Who are the primary users of our product?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mission Achievement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The value you are creating for the sum of all of the beneficiaries / the greater good.</td>
</tr>
</tbody>
</table>
Time to Work!

We are here to help guide you.
Pitching Your Program

Tell us what problem you’re solving & for whom.

Share a story (what is your user validation?)

Define what resources you have & need (include your team!)

Be specific about what you’re asking for!
## Pitch Order

<table>
<thead>
<tr>
<th>1 -</th>
<th>6 -</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 -</td>
<td>7 -</td>
</tr>
<tr>
<td>3 -</td>
<td>8 -</td>
</tr>
<tr>
<td>4 -</td>
<td>9 -</td>
</tr>
<tr>
<td>5 -</td>
<td>10 -</td>
</tr>
</tbody>
</table>
Time to Work!

We are here to help guide you.
Welcome
to final presentations
How Pitching Works

teams
pitch 5 min
q&a 3 min

team on-deck,
pull up slides
during Q&A

Everyone,
have fun!
PITCH TIME!
LETS ROCK!!!
Follow-up information may be requested. Winning programs will be selected for funding.
Fight on DTRA!