

Capstone Project

Gaby Hébert, B.Com

Program | DETA 5300, Technical Apparel Design

Instructors | Dan Robinson and Evelyn May

Wilson School of Design | Kwantlen Polytechnic University
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cañada



**Create apparel that
promotes safety
while enhancing
the athlete
performance
in DWS.**

caída

Enviroment



Participant Profile

DEMOGRAPHICS

67%
Men

65% are 18-
35 Years Old

Median
Age 24

40% make < \$45,000/year
20% make > \$100,000/year

Majority
Caucasian

70% Attend
Post Secondary

Unmarried

Growing Interest
for Safety

PSYCHOGRAPHICS

Spend \$1,200 USD
a Year on Gear

100% have practiced rock
climbing before DWS

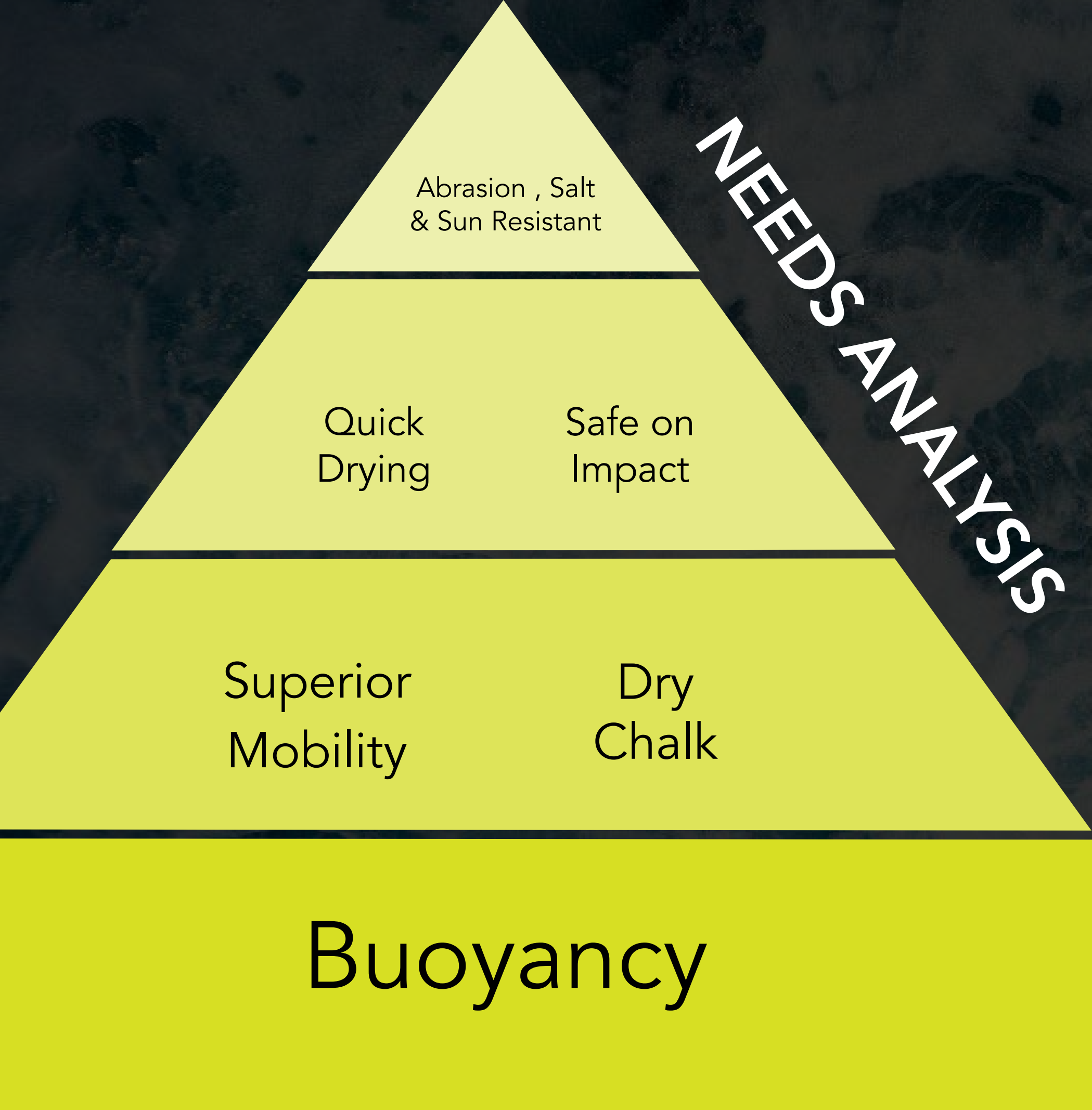
Risk
Seekers

Risk Analysis

*Tired
Muscles*

*Serious
Injury*

*Loss of
Consciousness*



Abrasion , Salt
& Sun Resistant

Quick
Drying

Safe on
Impact

Superior
Mobility

Dry
Chalk

Buoyancy

NEEDS ANALYSIS

Market Size

CLIMBING

WATERSPORTS

Market Value

\$12.45B

\$29.0B

Participants

7.7 Million

32 Million

Growth

~3-5% per year

Paddle Boarding
Kayaking
Female participation

DESIGN OBJECTIVES



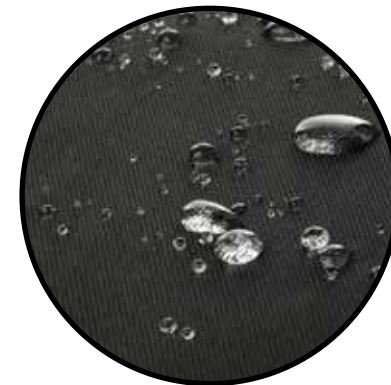
Adjustable buoyancy



Streamline design



Dry storage for chalk



Quick dry



Fall Compatible



Durable

Concept Justification

FLOTATION DEVICE

24%

44%

20%

12%

0%

I would never wear such a garment.

I am not likely to wear such a garment.

I am unsure if I would wear such a garment.

I am likely to wear such a garment.

I always wear such a garment.

DWS FLOTATION AID

4%

24%

40%

20%

12%

*among 25 deep water soloist respondents

PROTOTYPES

BLOCK



Fit

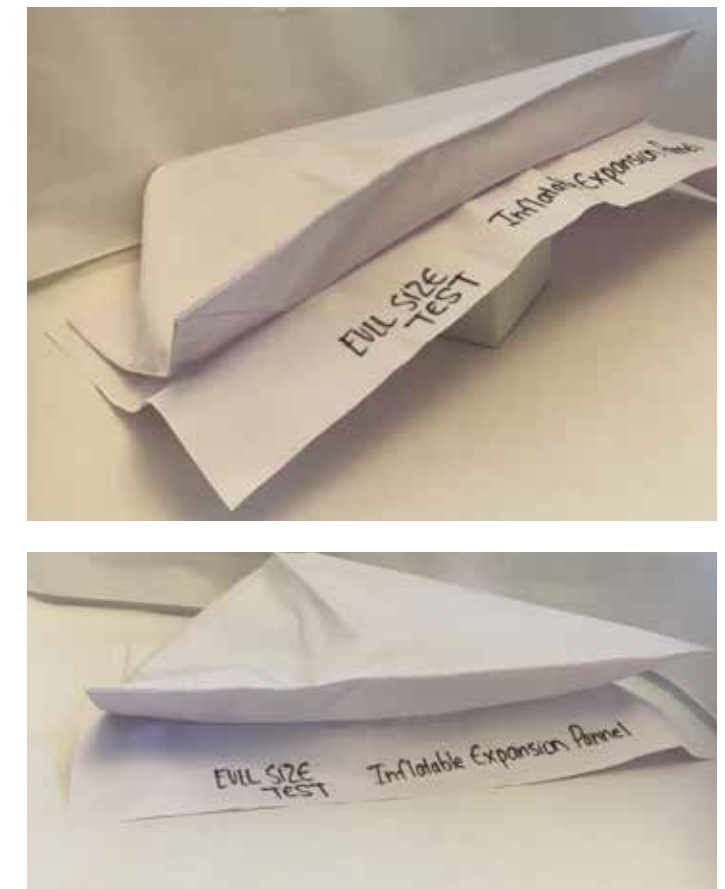
PROTO 1



Expansion Methods



Fit + Style



Full Scale Expansion

PROTOTYPES

PROTO 2



***Inflation +
Adjustments***

PROTO 3



Fabrics + Details

BLADDER

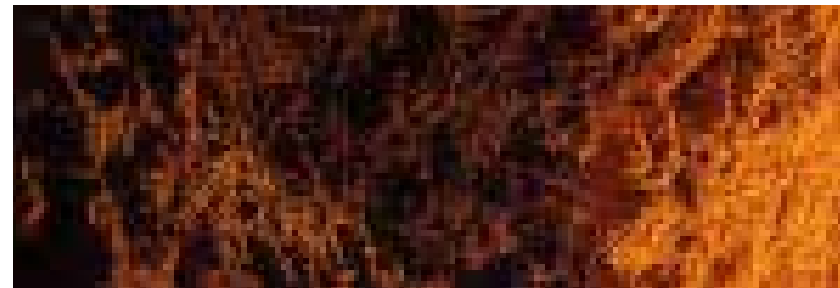


***Manifold
Placement***

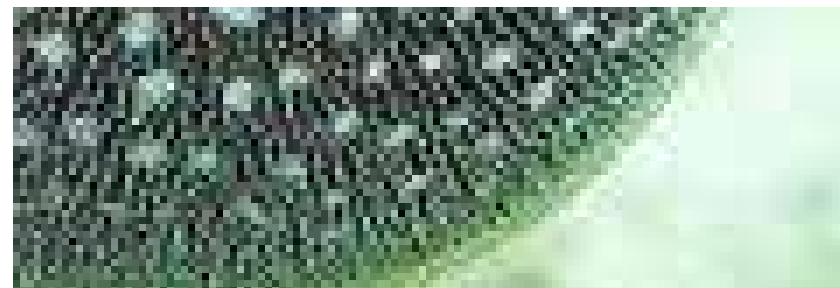
Trends & Aesthetics



Colour



ALERT
17-1350 TCX



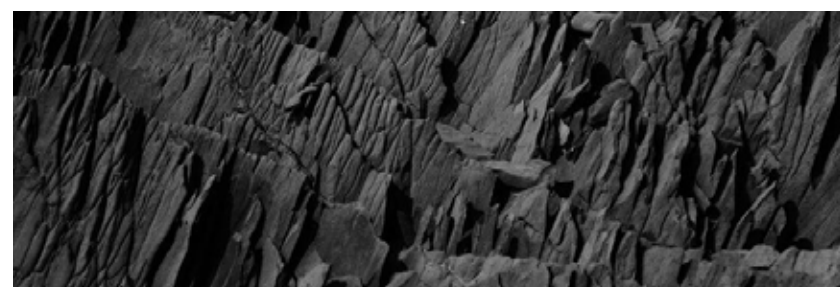
SAFETY
13-0650 TCX



WHITECAP
11-4800 TCX



DEEP OCEAN
19-4122 TCX



MARIANA BLACK
19-4203 TCX



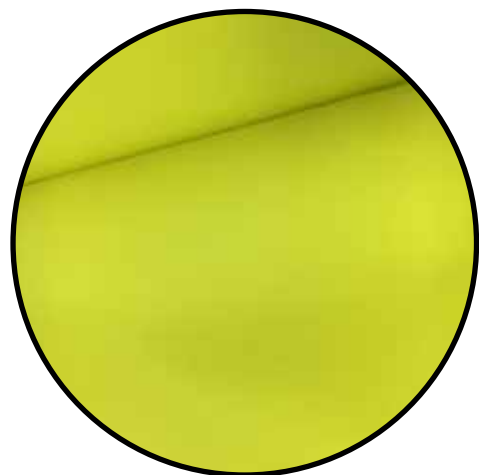
Materials & Trims



Reinforced Dyneema Ripstop



620 D Cordura



Nylon/Spandex 4-Way Stretch



Final Design





Internal inflatable bladder

Easy pull handle

Convenient oral inflation valve

Expandable main body cavity

Stretch side panels

Secure ladder-hook adjustment

100% dry chalk storage

Easy chalk-up pouch

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THANK YOU

Canada





Photo Acknowledgments

Product Photography: Nicole Jorgensen

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