



TALON TECH SKI BINDINGS

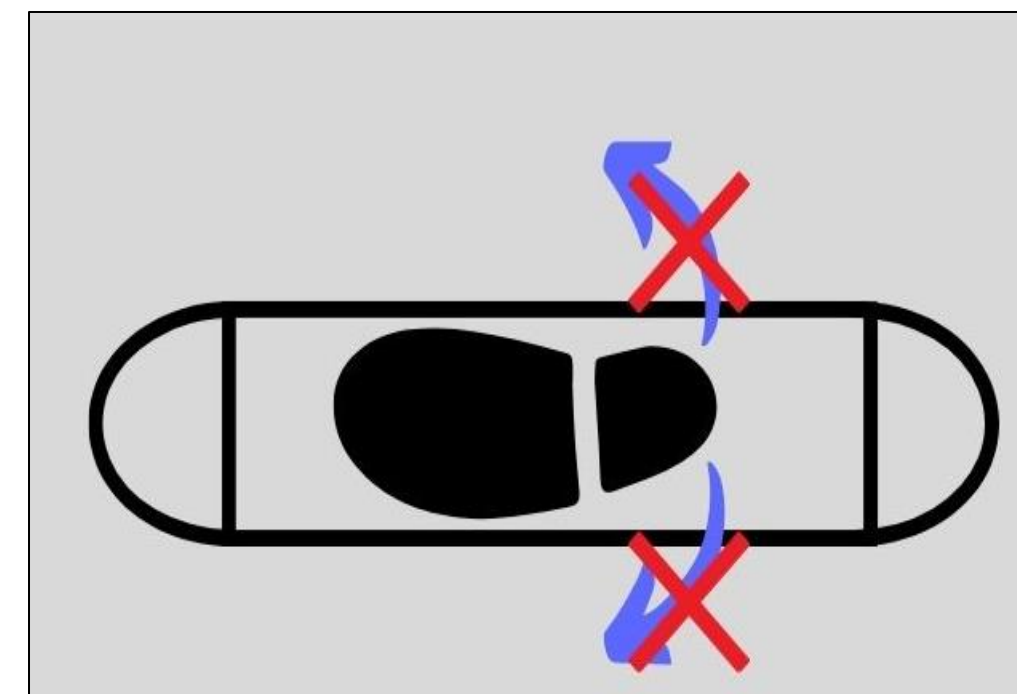
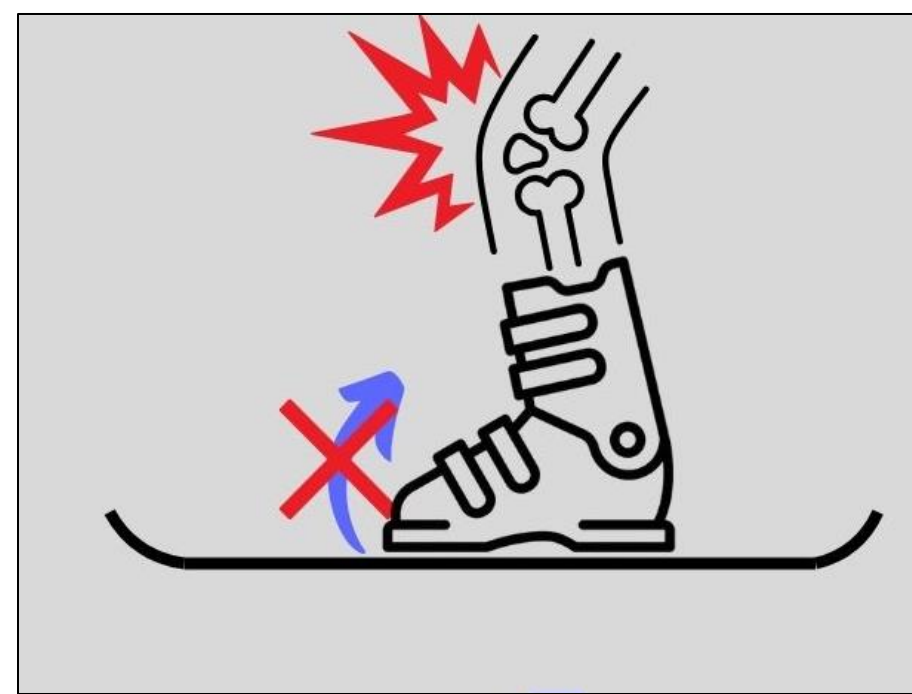
Innovating a 50-Year-Old Design to Protect Skiers

dc | DESIGN CENTER
COLORADO

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Engineering for Social Innovation - Team 42

Background

Modern ski bindings were designed to prevent leg fractures, but do not protect the user from knee injuries.



25%
ACL Re-
Tear Rate

240,000
Annual Knee
Injuries in the
US from Skiing

6+ Months
Average
Recovery Time
of an ACL Tear

\$25,000
Cost of an
ACL Injury

Objectives

Design Requirements

- ✓ Horizontal and vertical release mechanisms in both the heel and toe pieces
- ✓ Complete DIN adjustability
- ✓ Compatibility with standard boot and ski

Testing Requirements

- ✓ Pass industry standard torque release test
- ✓ Ultimate strength and fatigue strength factor of safety of 3

Business Requirements

- ✓ Establish a supply chain structure
- ✓ Build 5-year business model

Design



Design Overview

- Compatible With Standard Alpine Setups
- Three Directions of Release
- Independent DIN Rating Adjustments

Vertical Release

- Groundbreaking Innovation
- Injection Molded PA6 GF40

Horizontal Releases

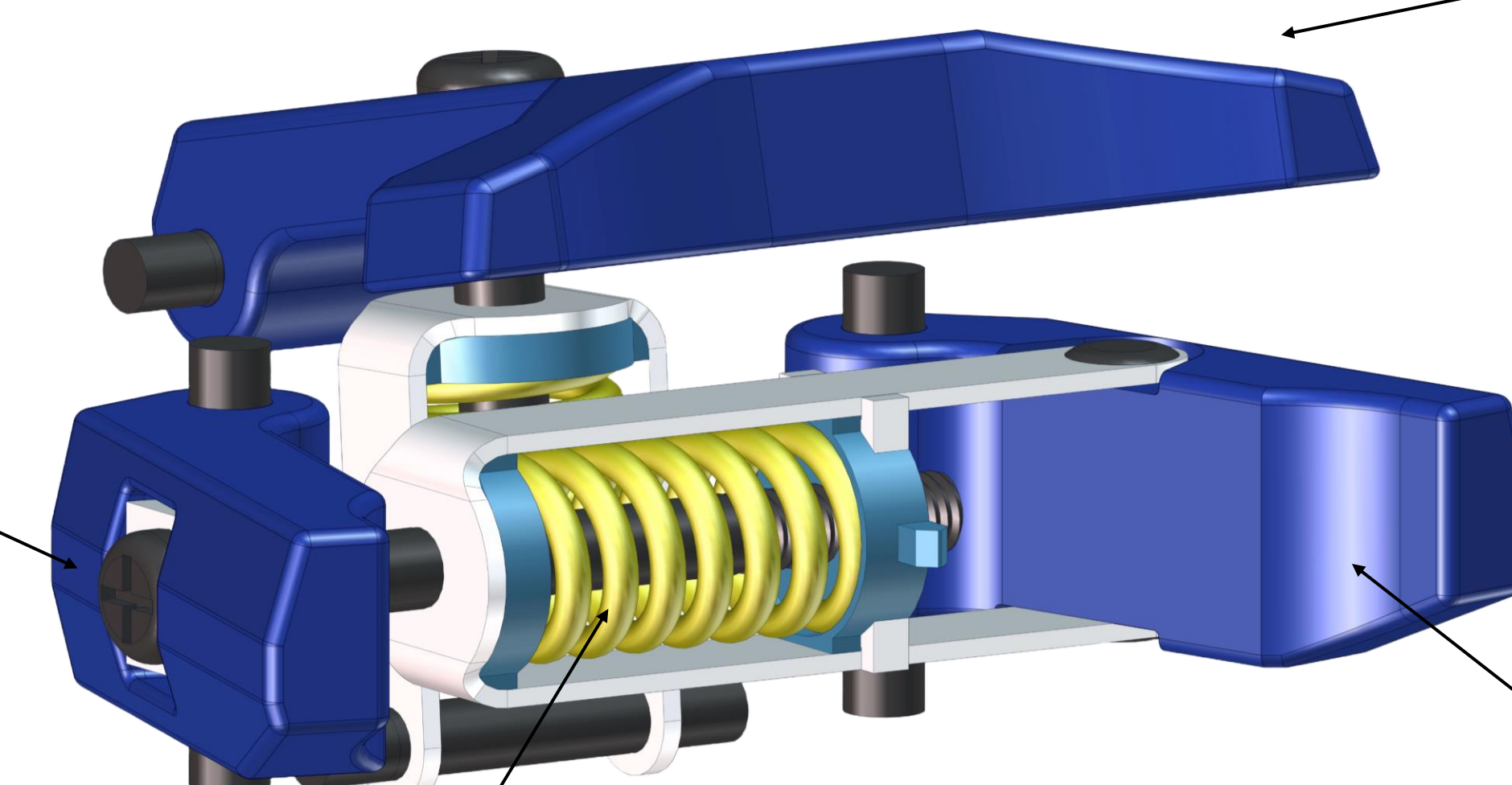
- Injection Molded PA6 GF40

DIN Adjustment Screws

- Philips Head
- Hillside Washer

Release Spring Mechanisms

- Die Cast Steel Spring
- Stamped Stainless Steel C-Clamp
- Injection Molded PA6 GF40 Spring Guide and DIN Reader



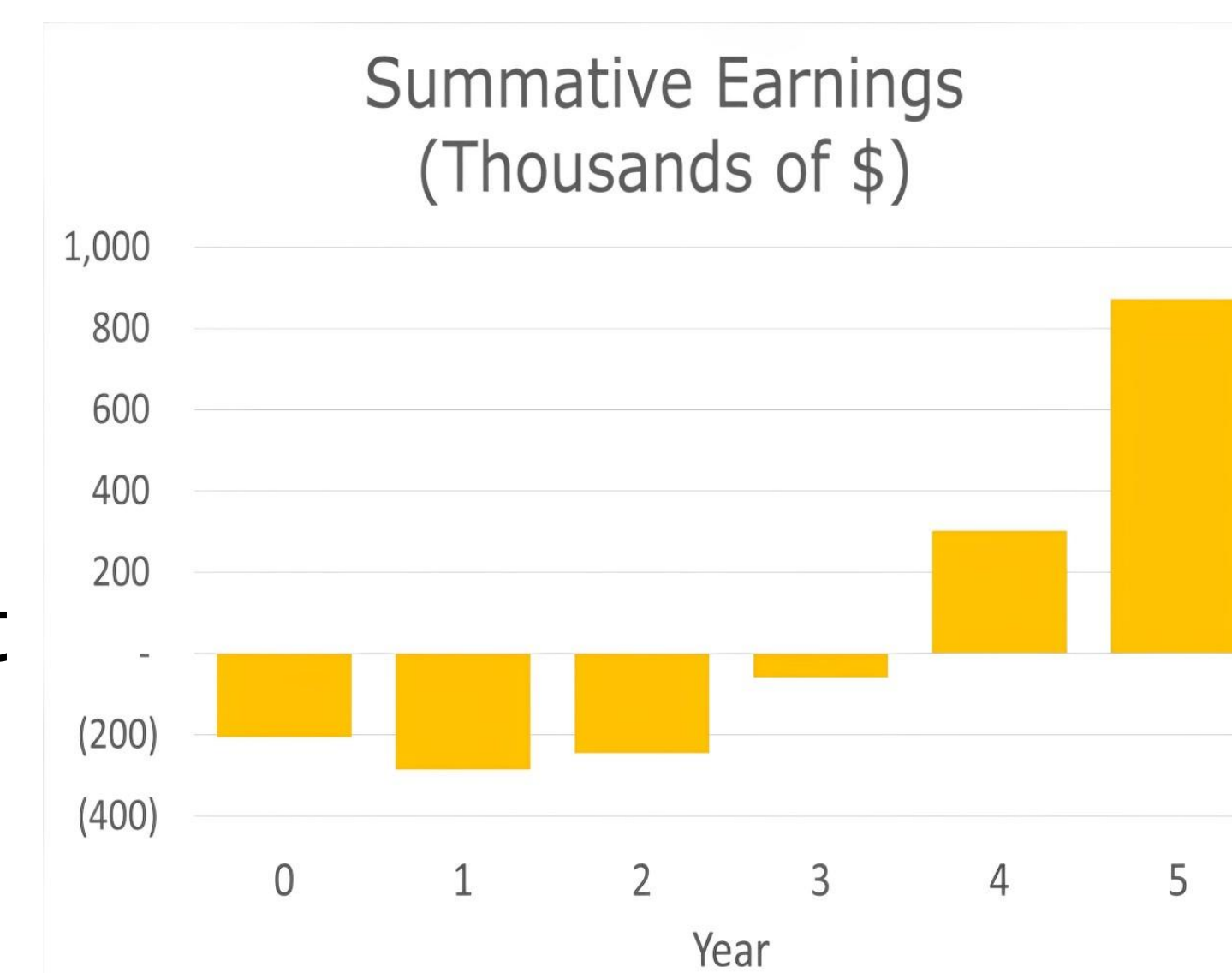
Business Model

Wholesale to Retail
Stores & Resorts

Athletic Sponsorships

\$210/Unit Gross Profit

95.5% Interest in
Talon Tech Bindings



Impact

New Venture Challenge Competitor
CU Catalyze Grant Recipient

"I see this ski binding as a game changer in the industry, revolutionizing how we will approach ski safety in the future"

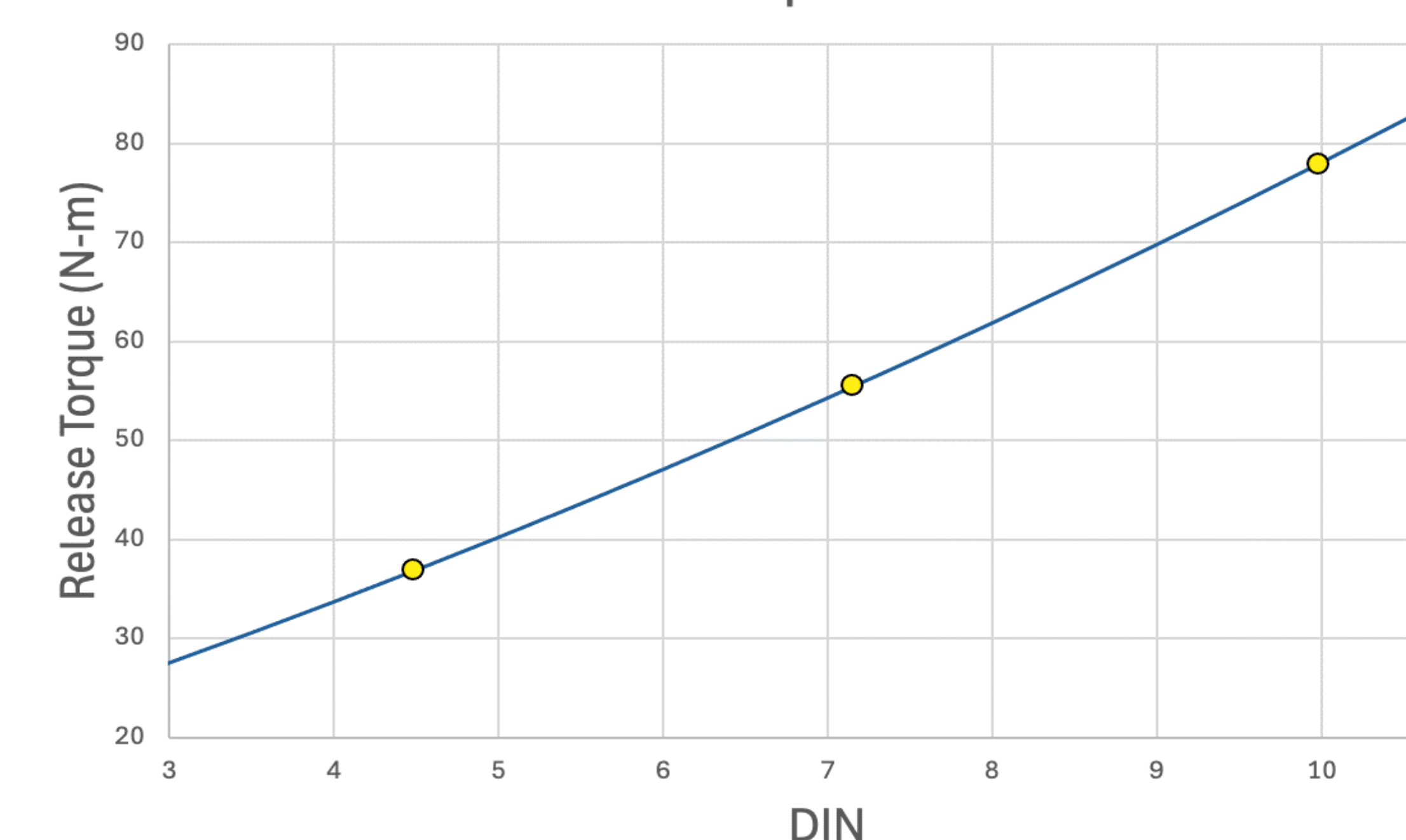
Coach Rosenstrach
CU FreeSki Team

Testing

Torque Wrench Test

- Ensure the product meets the standard release torques expected in industry per ASTM F-504
- Calculate the DIN rating of the product's spring mechanisms at different levels (4-10)

Release Torques vs DIN



Universal Test Machine

- Ensure the strength of the product components
- Confirm material selections

Additional Tests

- Temperature test
- Fatigue test

Thank you

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