

2021 FIRST California Workshop Series:
PRODUCT DEVELOPMENT +
DESIGN THINKING

Session 5: Prototype & Development
February 6, 2021



Theresa Bateman

FIRST Regional Director,
Greater San Francisco Bay Area



2021 FIRST California Workshop Series: PRODUCT DEVELOPMENT + DESIGN THINKING



Identify the Opportunity	Generate Ideas	Evaluate Ideas & Filter	Determine Business Strategies	Develop the Idea	Product Trial
<ul style="list-style-type: none"> Evaluate the Innovation Challenge Criteria Design Thinking - Empathy & Define Problem Statement Intellectual Property intro 	<ul style="list-style-type: none"> Design Thinking - Ideate Brainstorming Diversity & Inclusion of Ideas 	<ul style="list-style-type: none"> Product Design Specification Concept Sketches Pugh Analysis Matrix SWOT Analysis Market Analysis 	<ul style="list-style-type: none"> Strategy for Startups Product-Market Fit Value Proposition Innovation S-curve Prepare the Pitch 	<ul style="list-style-type: none"> Design Thinking – Prototype User Experience Design Engineering Reliability Manufacturability Patents 	<ul style="list-style-type: none"> Design Thinking - Test Test/Experiment Design A/B Testing Qualitative Testing Quantitative Testing
Jan 9 th , 1-3pm	Jan 16 th , 10am-Noon	Jan 23 rd , 10am-Noon	Jan 30 th , 10am-Noon	Feb 6 th , 10am-Noon	Feb 20 th , 10am-Noon

Teams are invited to connect with a **Team Advisor** and join a **Pitch Party**. **FIRST Regional Directors** will provide details.

Session 5 Prototype & Development

Time	Agenda Item	Presenter
10:00 - 10:10am	Welcome & Session 4 Recap	Theresa Bateman, FIRST
10:10 – 10:20am	KLA Introduction	Christian Wolters, KLA
10:20 – 11:10am	Design Thinking – Prototype and User Experience	Amelia Traylor, Stanford Adam Nayak, Stanford
11:10 – 11:30 am	Prototype & Development at KLA	Tamara Kawa, KLA
11:30 - 11:40am	Wrap up & Prep for Session 6	Theresa Bateman, FIRST
1:00pm – 2:00pm	BONUS : Intro to Patents (separate Zoom link)	Elizabeth Morris, KLA

Session 4 Fun

2021 FIRST CALIFORNIA WORKSHOP SERIES

Session 4 Closing

Business Analysis

- Strategy for Startups
- Product Market Fit
- Value Proposition
- Innovation 5 curve
- Prepare the Pitch

Prototype & Development

- Design Thinking
- Prototyping
- Design Engineering
- Manufacturability & Reliability
- Ergonomics & User Experience
- Patents

Homework

- Identify your market and beachhead customer
- Develop your business model, consider using the Strategy Compass
- Develop an XYZ statement

Session 5

- Prototype & Development: Feb 6th, 10a-12pm
- Patents: Feb 6th, 1-2pm
- Brought to you in partnership with

Thanks for joining us & see you next Saturday!

UCLA

1: Intro to Entrepreneurship

2: Entrepreneurial Strategy

3: What Are Investors Looking For

4: Pitching and Storytelling

tesseract INITIATIVE

FIRST CALIFORNIA ROBOTICS

first_robotics_svr • Follow

first_robotics_svr Shout out to Anna Shaposhnik, an outstanding alum from @firstteam846 and @tesseractinitiative, for her leadership and expertise in the last Product Development + Design Workshop session! If you missed last week's session, the link in our bio has a sign up for this week's and a recording of last week's.

Speaking of the last session, has your team participated in our Social Media Challenge yet? The deadline is approaching, so be sure to check our earlier post for more information. We hope to see your teams at the next workshop session!
#FIRSTgamechangers #FIRSTinCA

ARTIMAN WHITE SPACE INVESTMENTS

FIRST CALIFORNIA ROBOTICS

firstmontereybay • Follow

firstmontereybay We went to express appreciation and gratitude to Brian Wilcove for speaking to nearly 200 students last Saturday during the business analysis session of the first California workshop series: product development plus design thinking workshop 🙌🙌🙌

In addition to bringing expertise about the world of startups and innovation, Brian also brought his experience as a first parent and mentor. Thank you Brian!

Don't forget to give us your favorite quote and post it and tag for entry into the social media challenge! Winning teams will receive fun Star

cardinalbotics 14h

Our favorite quote from the workshop was "There is more than one path to create and capture value"

@sfregional

SOCIAL MEDIA CHALLENGE January 30 - February 4

Add This to Your Story >

first_robotics_svr • Follow

first_robotics_svr We'd like to recognize Leo X, from @firstteam846 for his leadership as a student in our last workshop session! 🙌🙌

If you missed the last session or want to attend the next, check the link in our bio! #FIRSTgamechangers #FIRSTinCA

4 likes 1 HOUR AGO

Login to like or comment.

Recognizing Leo X for great student leadership

FIRST CALIFORNIA ROBOTICS

WORKSHOP SERIES

PRODUCT DEVELOPMENT + DESIGN THINKING

brought to you by FIRST California

SIGN UP FORM & REPLAYS

2021 FIRST California Workshop Series: PRODUCT DEVELOPMENT + DESIGN THINKING

spacecookies1868 "You can have the best product ever, but if your business strategy for launching that product into the world is weak, you really won't get anywhere." -Anna Shaposhnik (tesseract team member)

This is just one of the many valuable insights from last week's business



#FIRSTinCA



Session 4 Recap

Business Analysis

Determine Business Strategies

- Strategy for Startups
- Product-Market Fit
- Value Proposition
- Innovation S-curve
- Prepare the Pitch

Jan 30th, 10am-Noon

- **Business Analysis & Entrepreneurial Strategies**
 - **Product-Market** fit and beachhead customers are important
 - Product adoption/maturity shown in **Innovation S-Curve**
 - **Strategy Compass** used for go-to-market strategies
 - XYZ statement can be used as a simplified **Business Pitch**
- **Homework**
 - Identify your market and beachhead customer
 - Develop your business model, consider using the Strategy Compass
 - Develop an XYZ statement business pitch



Christian Wolters

KLA Vice President



Tamara Kawa

**KLA Mechanical Design Engineer
FRC Alumna of Team 1967 - The Janksters**

Session 5: Prototype & Development

wrap-up and prepare for

Session 6: User Testing

Additional Resources

- ***KLA Bonus Session Today 1pm-2pm***
 - Intro to Patents with KLA Patent Attorney – included is an intro from KLA Foundation describing how they sponsor teams
- ***FIRST Innovation Challenge Content Series*** webinars:
<https://info.firstinspires.org/innovation-content-series>
 - Designing for Impact – February *tbd*

Thanks for joining us & see you next Saturday!



Develop the Idea	Product Trial
<ul style="list-style-type: none">• Design Thinking - Prototype• Design Engineering• Manufacturability & Reliability• Ergonomics & User Experience• Patents	<ul style="list-style-type: none">• Design Thinking - Test• Small Group Feedback• A/B Testing• Refine the Pitch
Feb 6 th , 10am-Noon	Feb 20 th , 10am-Noon

- **Homework**
 - Develop a working prototype
 - Determine where & how to test your prototype, using Scenes/Props/Roles
 - Run low stakes testing to confirm the solution
- **Session 6 in two weeks**
 - User Testing: Feb 20th, 10a–12pm
 - Brought to you in partnership with

