





The Innovation Challenge

FRC D-Bug #3316

מי אנחנו?

- ענב, רותם ושגב
- תעירוני ד' D-Bug #3316 מעירוני ד' ⊓ברי קבוצת 76-Bug תל-אביב
- בוגרי קבוצת FLL D++ #285, אשר זכתה מקום שני בעולם בתחרות הGIA ב-2018
- זוכי אליפות אזורית ב-FLL כבר 3 שנים(2018-2020)











What is the FIRST Innovation Challenge?

The Innovation Challenge showcases the real-world, innovative solutions created by FIRST teams from around the world as part of their annually-themed Challenge.





הנושא השנתי

זהו בעיה או הזדמנות ועצבו פתרון שעוזר לאנשים, או לקהילה של אנשים לשמור, להשיב או להשיג בריאות גופנית ו/או מנטלית מיטבית באמצעות פעילות או משחק ספורטיבי







What is the FIRST Innovation Challenge?

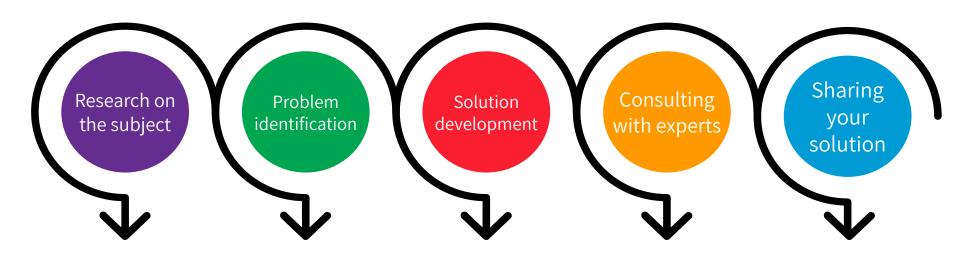
Through the *FIRST* GAME CHANGERS themed challenge, participating teams will:

- Identify a problem or opportunity to help people keep, regain, or achieve optimum physical or mental health and fitness through active play or movement
- Design a solution to seize the opportunity or solve the problem.
- Actualize their innovation by creating a business model and developing a business pitch.
- Advance their skills by using technology in their solution development process and/or design.





The Innovation Project Process

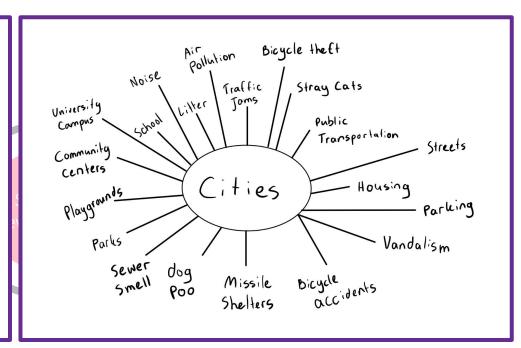


The Innovation Project Process - Research



Public Spaces

- Playgrounds too hot
- Playground germs
- Park trash
- No parking spaces
- Not accesible
- Missile Shelters

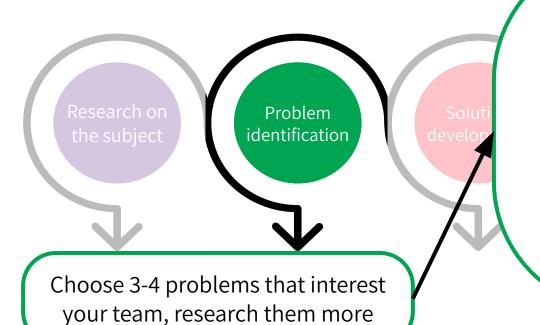


Research problems and topics related to the Innovation Challenge topic

Sort these topics into categories and research problems that arise from the topics that interest you



The Innovation Project Process - Problem



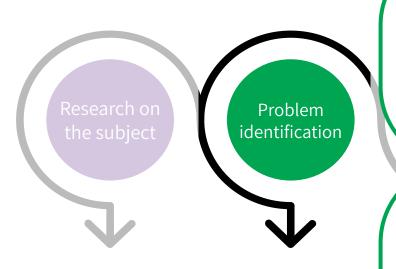
Make an excel with these problems, fill in these categories for each:

- Problem description
- Causes of the problem
- Existing solutions
- Audience affected by the problem



Vote and choose the problem you want to tackle!

The Innovation Project Process - Problem



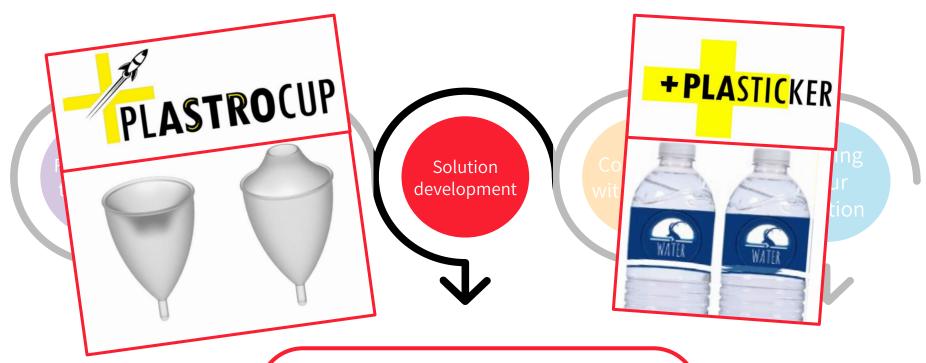
Make sure the problem you chose is unique, and relates to the challenge topic

Sharing your solution

Make sure to thoroughly research existing solutions to the problem



The Innovation Project Process - Solution



Propose ideas, compare to existing solutions, check feasibility, **improve!**



Solution Design

- The design of your solution must be shown to the judges
- You may present a 2D or 3D representation of you design
- You might want to build a prototype or some sort of proof of concept
- When designing account for reliability and user experience
- The use of technology in either the development of and/or the solution is required









The Innovation Project Process - ECN

- An Engineering Change Notice (ECN) is a document that documents design changes throughout the prototyping and life-cycle phases of a product
- Use it to track the improvements you made and the reasons for them, it shows your product's development over time



			Engineering Change N	otice (ECN) Log	
Innovat Name	lon	/a=		Team Name	
Change #	Date of Change	Type(s) of Change(s)*	Description of Change(s)	Reason for Change(s)	
		-			

*addition / deletion / mechanical, visual, etc.

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The Innovation Project Process - Experts











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The Innovation Project Process - Research



Share your innovation project!



With other teams





In conventions



Target consumers

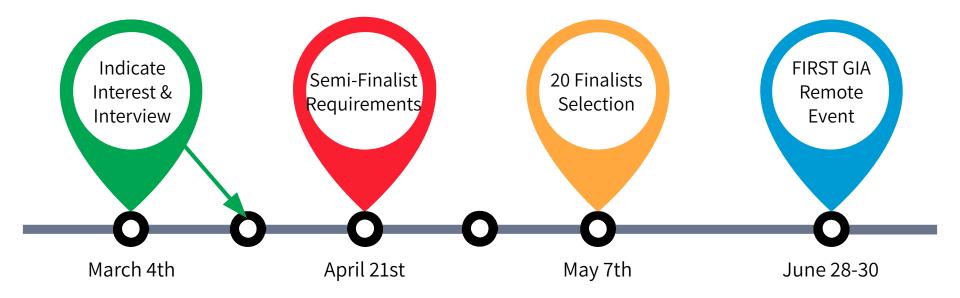








Timeline





Timeline and Submissions



March 4th

- Brief solution description 10 words
- Executive summary:
 - The problem 200 words
 - The solution 200 words
 - What technologies will the team use 100 word
- The executive summary won't be judged, teams may change/improve their solution between the submission deadline and the interview



Timeline and Submissions



March 4th

- The Interviews will be from March 15th and April 11th
- Teams will be contacted regarding their judging slot
- The judges review your project before the interview
- 2 minute pitch, 3 minute presentation, 10 minutes for questions + 1 minute buffer





Business Pitch

- What problem are you solving?
- What is your solution?
- Who are your customers?
- Why is your product better than others on the market?
- What experts did you talk to?
- Your solution's strengths and market opportunities
- How did you improve your solution? (ECN)



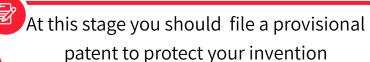
A video may be a part of your pitch (such as a CAD animation or video of a prototype)



Timeline and Submissions



- Public project description 150 words
- Public team description 150 words
- Team logo
- Business pitch video 2 minutes
- Innovation impact 500 words
- Design 500 words
- Business model 500 words





Timeline and Submissions



Optional submissions:

- Update executive summary 350 words for the problem and 350 for the solution
- An A4 supplemental page for illustrations, photos etc.
- An image of the solution (sketch, photo, etc.)
- A video of the solution (CAD animation, prototype)



+PLASTICKER

Business Model Canvas D++ // PLASTICKER



KEY PARTNERS:

Our entire eco system is made of: Label companies, Water bottle companies, the Ministry of Health, the Standards Institution of Israel, chemical manufacturers, investors, lawyers, accountants, advertising, freight forwarders, custom brokers and banks.

KEY ACTIVITIES:

Finding investors. Filing a PCT patent. Raising market awareness. Continue meeting and closing a deal with a local water bottle company (preferably, one that is part of a global company) Deciding upon the production of PLASTICKER. Meeting with lawyers and

KEY RESOURCES:

accoutants.

Investors. Patent Lawyer Advertising/PR agency specialized in market awareness. Local water bottle company Lawyers Accoutants. Label manufacturing companies Water bottle companies Chemical manufacturers Freight forwarders Custom brokers Banks.

VALUE PROPOSITION:

PLASTICKER costs .3 of a cent. PLASTICKER accompanies the bottle from the moment it leaves the factory. PLASTICKÉR doesn't change the

Daily routine of the customers. PLASTICKER surrounds the bottle. and it changes when the sun comes from any angle.

PLASTICKER gives people a sense of confidence.

In short, PLASTICKER's value proposition is clear. Our survey showed that 78% of the consumers drink out of disposable plastic bottles on daily basis, 92% care about drinking non contaminated water, and do not want to pay much more for their products. For them PLASTICKER is the ideal and most attractive solution; as it will indicate whether the water in a bottle is or is not toxic and will give them a sense of confidence.

CUSTOMER RELATIONSHIPS: CUSTOMER SEGMENTS:

Ofer Yanko, the CEO of Neviot, a major Israeli bottled water company.

He beleves that PLASTICKER can be simply and cheaply manufactured and that it can enhance product reliability.

He finds it suitable to incorporate it in the Neviot brand.

Neviot is part of the Coca Cola Company.

Before we will close an agreement with them or any other global company, we will prefer working on increasing market awareness.

We might even sell our product on the markes separately without a bottle.



CHANNELS:

PR and advertising agencies will assist us in raising awareness in the market: Social networks and other medias.

The water bottle company will advertise the PLASTICKER as a feature of their bottles.

Our customers are water bottle companies that sell to all market segments:

Supermarkets, hypermarkets, grocery stores, convenience stores, drug stores, club stores, vending machines and others

Our customers will sell in bottles of different sizes such as 8 oz, 12 oz,16.9 oz, 20 oz, 24 oz, 33.8 oz, 53.8 oz or 67.6 oz.

Our customers ideal end consumers are people who drink out of disposable plastic bottles on daily basis and care about harming to their health.



The important costs in the first stage are: filing a patent - 20K\$, Marketing and Awareness (through social media ads) - 40K\$, prototype (Manufacturing, testing and QA) - 8K\$, SG&A - 10K\$, Unplanned expenses- 10K\$. A total of 88K\$. We will research how to lower the material, operation and production costs. At the moment the prototype material costs is high too: 2,780\$ for a minimal amount of materials to order, and a total of 0.02 cents per prototype.

REVENUE STREAMS:

The first 6-9 months the revenue streams will need to come from investors/partners.

Selling each unit for 5 cents - a profit of 2 cents.

Our plan is based on consumption and market share we expect to take in one brand in the local market: In year 2019, 10%-15% of the brand. In 2020 - 35% and in 2021-22 - 85%.

In 2019 & 2020 we will work on global marketing and awareness, and start penetrating the global market gradually, starting with 20M Units in 2020 growing to 200M at 2022.







- 20 Teams will be selected
- Teams will receive an e-mail from FIRST
- You can (and should) continue to improve your innovation in the time until the event
- Each week, finalist teams will receive small challenges and assignments



June 28-30

- A remote event
- ~5 hours a day of workshops, judging and mentoring
- On June 25 and throughout the event teams will be able to meet and talk other finalist teams
- Finalist teams will receive more information once they are chosen

A	В	3		D	E	F	G	Н	1	J
משימה	אדם שאחראי עליה	מצב		dead line	תאריך יצירה	info				
המשך כתיבת דוקס בעיית מוטיבציה וזמן	יהלי, איתמר, שי, איתן	גמור	-		24/11/2020	צריך להוסיף פתרונות קיימים ולפרט על המחק ממנו לקוח הגרפים				בעייתי
המשך כתיבת דוקס בעיית מסגרות חובבניות	רומי, עדי, דניאל	גמור	-		24/11/2020	להוסיף סטטיסטיקות				1%
כתיבת סיכום לשני מפגשים אחרונים	יהלי, איתמר	גמור			24/11/2020	תיעוד מפגש מה17/11 [יהלי] גמור תיעוד מפגש מה24/11 [איתמר] גמור				גמור אך 1.4%
לחפש נתונים שאנשים כבר עשו בנושא	איתמר ועדי	גמור	+		2/12/2020					לא התחלנו
לחפש על HR בנושא	יהלי ודניאל	גמור	*		2/12/2020					.8%
לחפש המצאות	יואב	גמור	-		2/12/2020		גמור			
לבדוק מה מאמנים עושים	שי	גמור	+		2/12/2020		62.5%		0	בעבודה 3%
להבדיל בין הפתרונות הקיימים	רומי	גמור	*		2/12/2020					3%
כתיבת סיכום למפגש 2/12/2020	שי	גמור	*		2/12/2020					
לכתוב תיאור לבעיה	איתמר	גמור	*		9/12/2020					
לחפש פטנטים לספורט בתוך המשרד	עדי	גמור	-		9/12/2020					
לחפש אתגרי פעילות גופניים תוך-משרדיים קיימים	איתן	גמור	-	מזמן	9/12/2020	physical activity challenges קשור לפטנטים	בעייתי	1		
כתיבת סיכום למפגש 9/12/2020	יהלי	גמור	*		9/12/2020		בעבודה	3		
לחפש פלטפורמות לתחרות תוך-משרדית	רומי	גמור	+		9/12/2020	לא מצאתי הרבה	גמור אך לא אושר	5		
fun wellness challenges : לחפש	דניא <mark>ל</mark>	גמור	*		9/12/2020	שוסטק כשאתה יכול לעזור תודיע לי	לא התחלנו	7		
לכתוב שאלות ל-HR	שי	גמור	-		9/12/2020	**	גמור	30		
להתחיל לכתוב על הפתרון	יהלי	גמור	*		9/12/2020		סכום כולל	46		
לחפש עוד מומחים	יואב	גמור	+		9/12/2020	תאשרו לי כבר, אני מחכה עומד ומחכה				
ליצור טבלת שינויים לפתרון	יהלי	גמור	•		11/12/2020					
להעביר את השיחה עם דודה של יהלי לדרייב	איתמר	גמור	-		20/12/2020	נשלח בוואצאפ				



What has the GIA done for us?



What has the GIA done for us?



Mayor of Tel-Aviv proudly posted our journey



The EDUCATOR++



FRC Entrepreneurship

Award



STEAM camps and activities



Skyping with LEGO Legion



Hosting GIA Israel finals

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