



## CASE STUDY: DINSMORE INC.'S 3D PRINTING BRINGS BICYCLE SEAT PROTOTYPE TO LIFE

Have you ever thought you'd ride your bike more often if the seat was more comfortable?

**You're not alone in wishing for a better bike seat.** Fitness instructor Bryan and his client Ani were dismayed at the state of bicycle seat comfort and decided to invent something that would address the chafing and saddle sores commonly experienced from cycling. Together, Ani and Bryan conceptualized, designed, developed, and patented the VSEAT, an extraordinarily comfortable bicycle seat that can be used on any indoor and outdoor bicycle. VSEAT's lead mechanical engineer Ian Fettes recommended Dinsmore Inc. to Ani and Bryan. Ian had worked with Dinsmore on previous projects and knew they would be a good fit for helping them create prototypes. Nick Dario was assigned as their account manager and brought his expertise and enthusiasm to the project. Ani says he was "welcoming and energetic," and Nick helped them choose the best materials for their prototypes. Initial models using Polyjet technology, which prints multiple materials and colors, helped Ani and Bryan get a good feeling for how soft or firm they wanted the VSEAT materials to be.

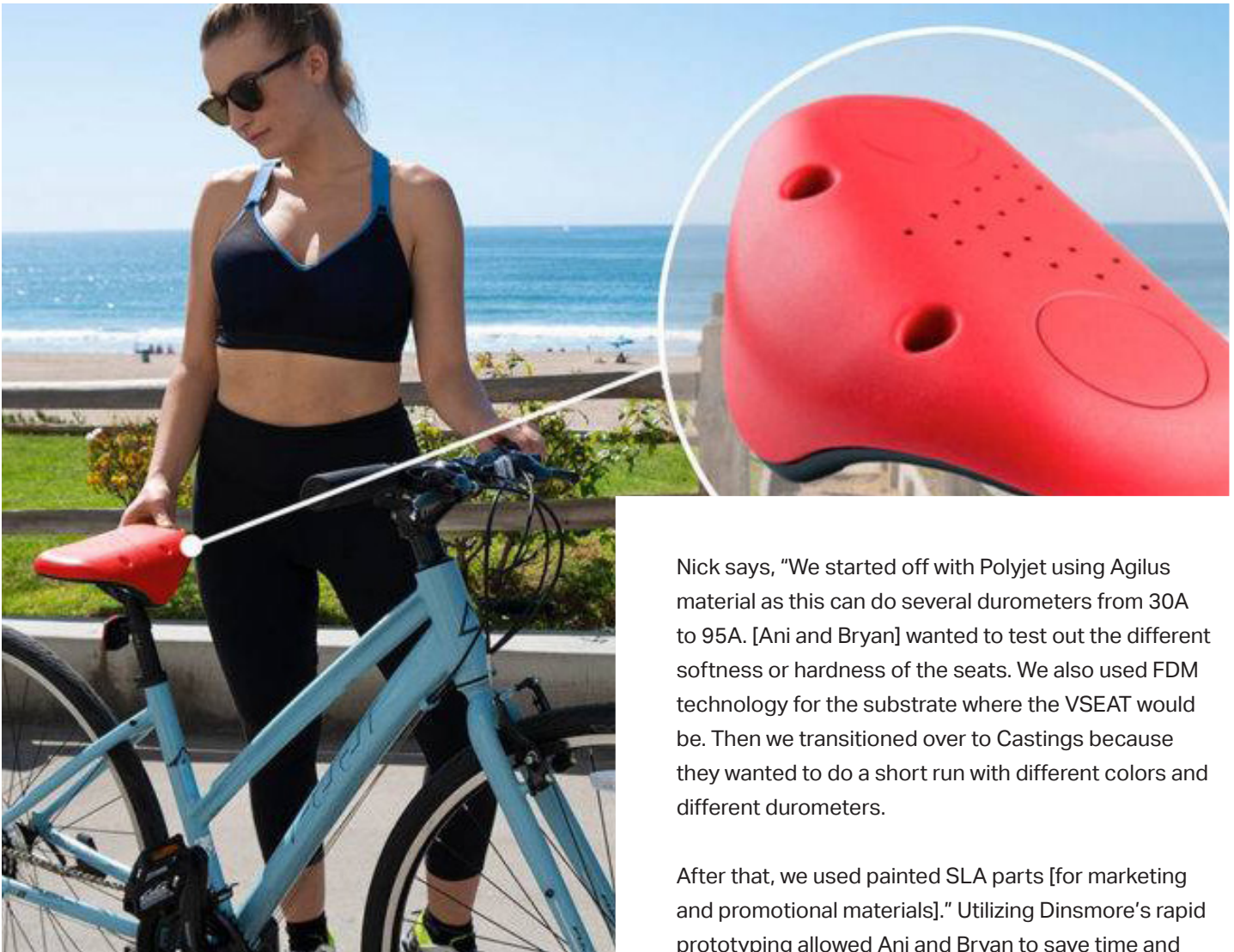
*"Working with Ani and Bryan was awesome! They were very easy going, and allowed me to guide them to which technologies and materials were best to use for the project."*

**Nick Dario,**  
Account Manager,  
Dinsmore Inc.



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Nick says, "We started off with Polyjet using Agilus material as this can do several durometers from 30A to 95A. [Ani and Bryan] wanted to test out the different softness or hardness of the seats. We also used FDM technology for the substrate where the VSEAT would be. Then we transitioned over to Castings because they wanted to do a short run with different colors and different durometers.

After that, we used painted SLA parts [for marketing and promotional materials]." Utilizing Dinsmore's rapid prototyping allowed Ani and Bryan to save time and money when creating the VSEAT. They received their first model just a few weeks after submitting their initial computer rendering. Dinsmore's ability to provide a robust prototype let them field test the seats on stationary, road, and mountain bikes for hundreds of miles. The collaboration between Dinsmore Inc. and the VSEAT inventors has allowed their creation to come to life, and are currently in production.

**Ani and Bryan hope the comfort of the VSEAT will encourage more people to cycle!**

