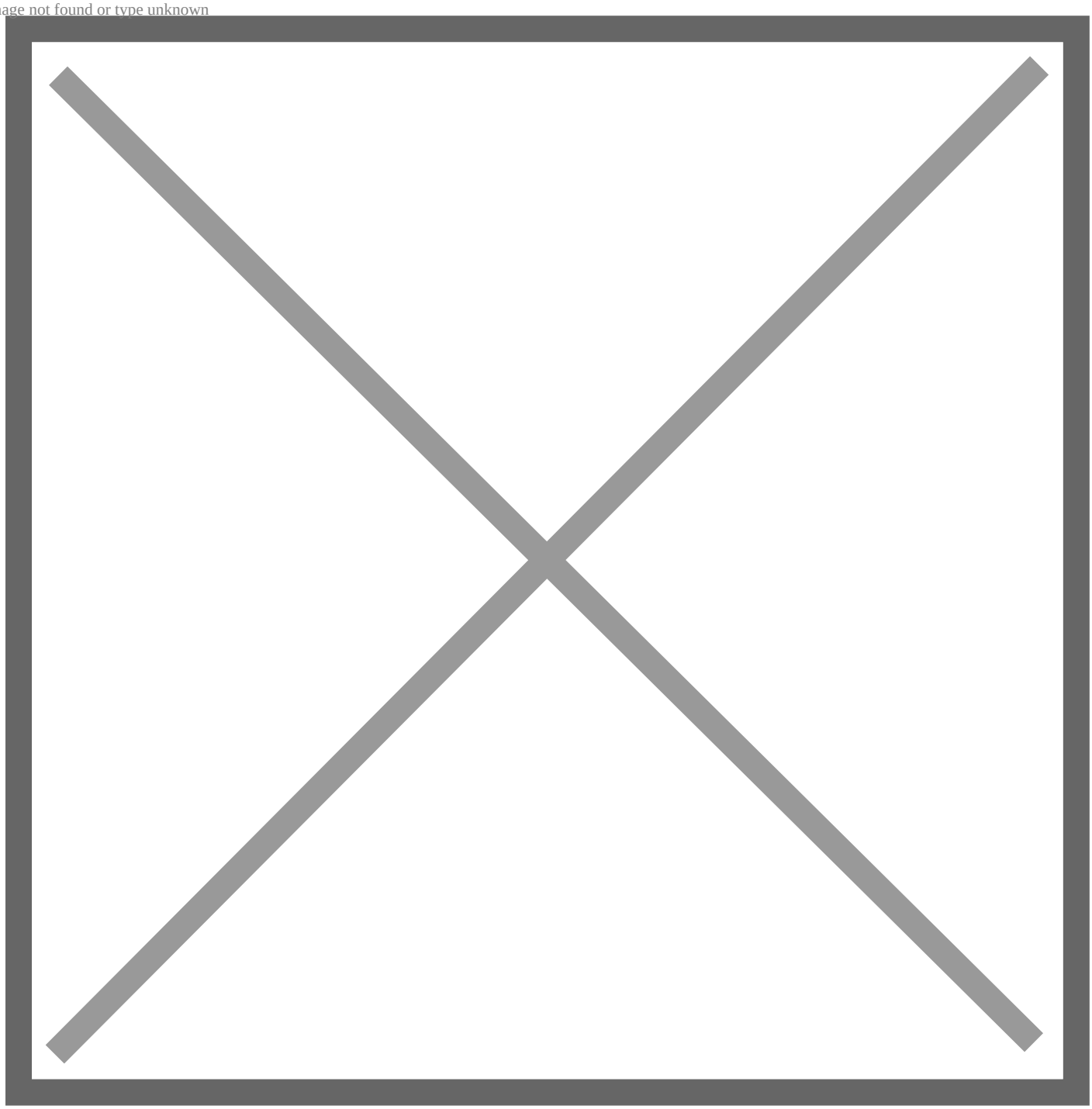
Full Speed Ahead: Evolution of CALTY’s Sports Cars — Part 2

January 23, 2024

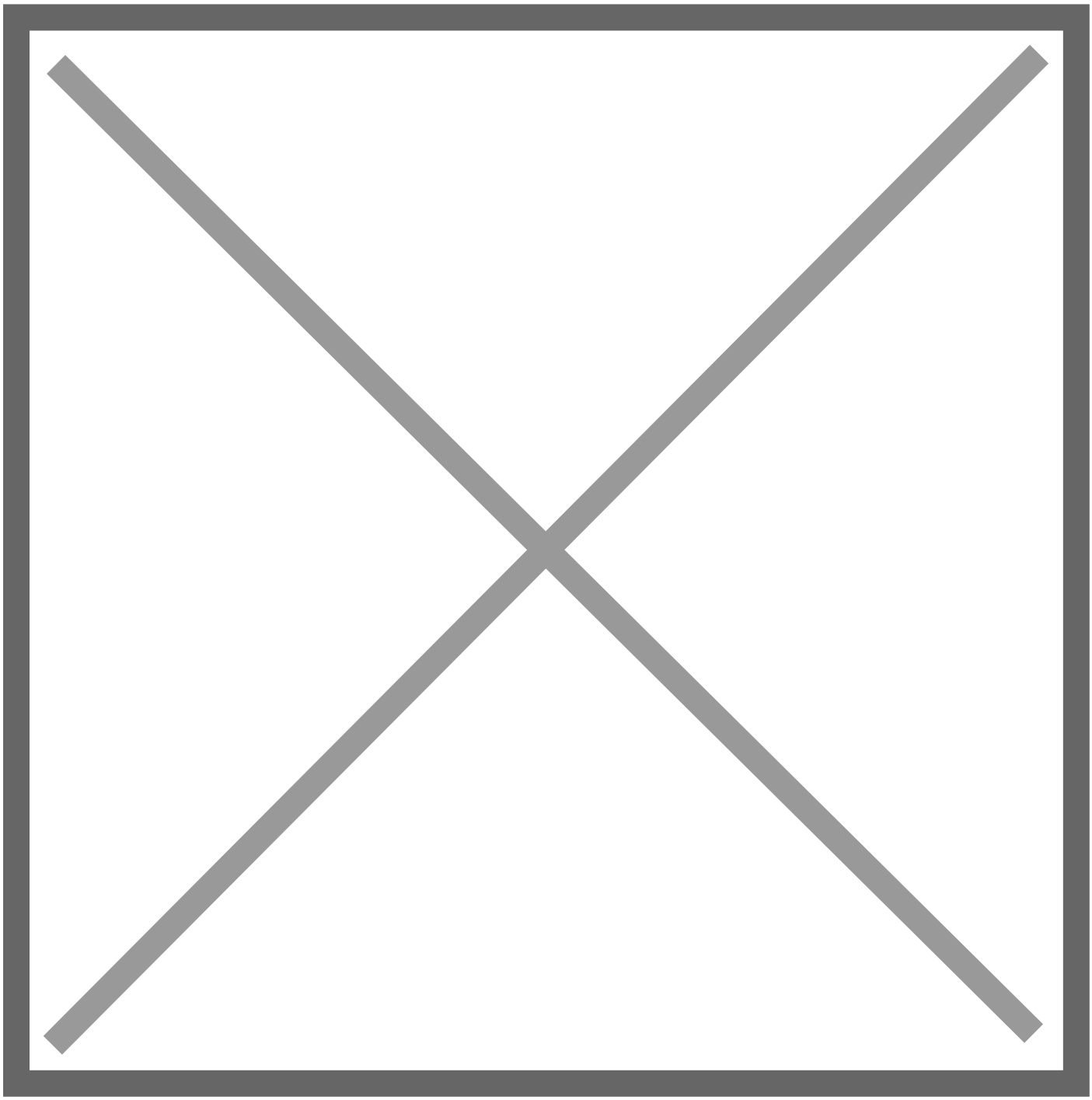
Image not found or type unknown



Toyota has a rich history of producing sports cars that have captured the hearts and imaginations of drivers and car enthusiasts around the world. Who are the people behind some of the most popular designs? The Calty Design Research team in California are the masterminds responsible for turning unimaginable concepts into reality.

From Lexus' quintessential '90s luxury coupe to the second-generation Toyota GR 86, the Calty team has continued to incorporate style, speed and advanced technology that have become synonymous with the brands. Whether on the racetrack or the open road, these vehicles have ushered in a new era of automotive excellence that has laid the groundwork for years to come.

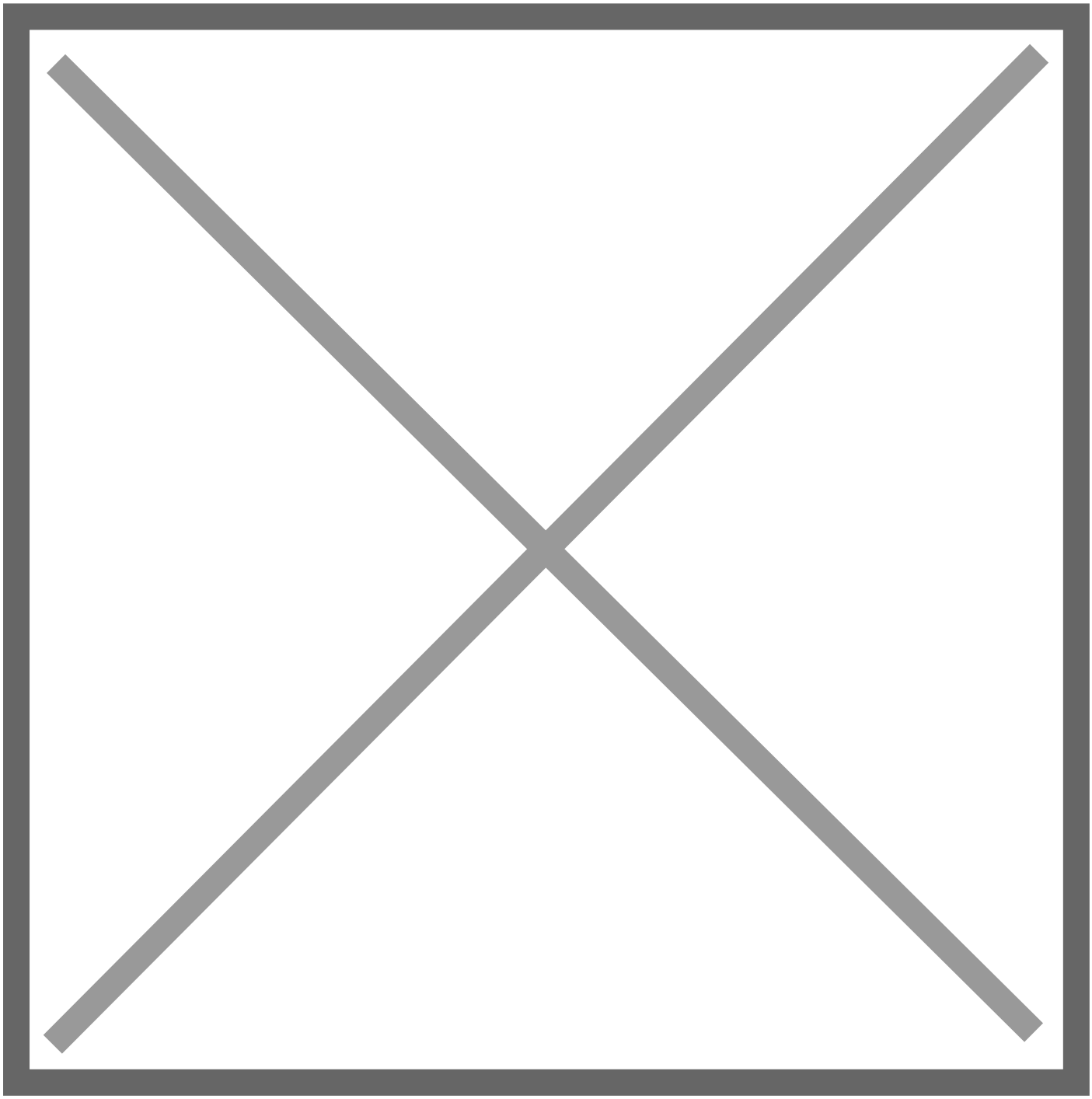
Take a look back with this slideshow spotlighting some of Calty's most significant sports car projects from the 1990s through the 2020s.



1991 Lexus SC 400

The SC project began in 1987 with a focus on defining philosophical design direction of the proposed new luxury sports coupe. The goal was to create an emotionally impactful appearance rather than a technical one. To accomplish this, the designers took a totally unique approach creating organic forms by filling balloons with natural plaster and then twisting and squeezing them to the desired shape. The plaster shapes were then photographed in dramatic light and projected onto a screen that could be slanted and rotated to stretch and manipulate the image in a beautiful shape that gradually took the appearance of an automobile. Despite initial uncertainty, the chief engineer was impressed and described the car as “very beautiful.” The Lexus SC 300 and

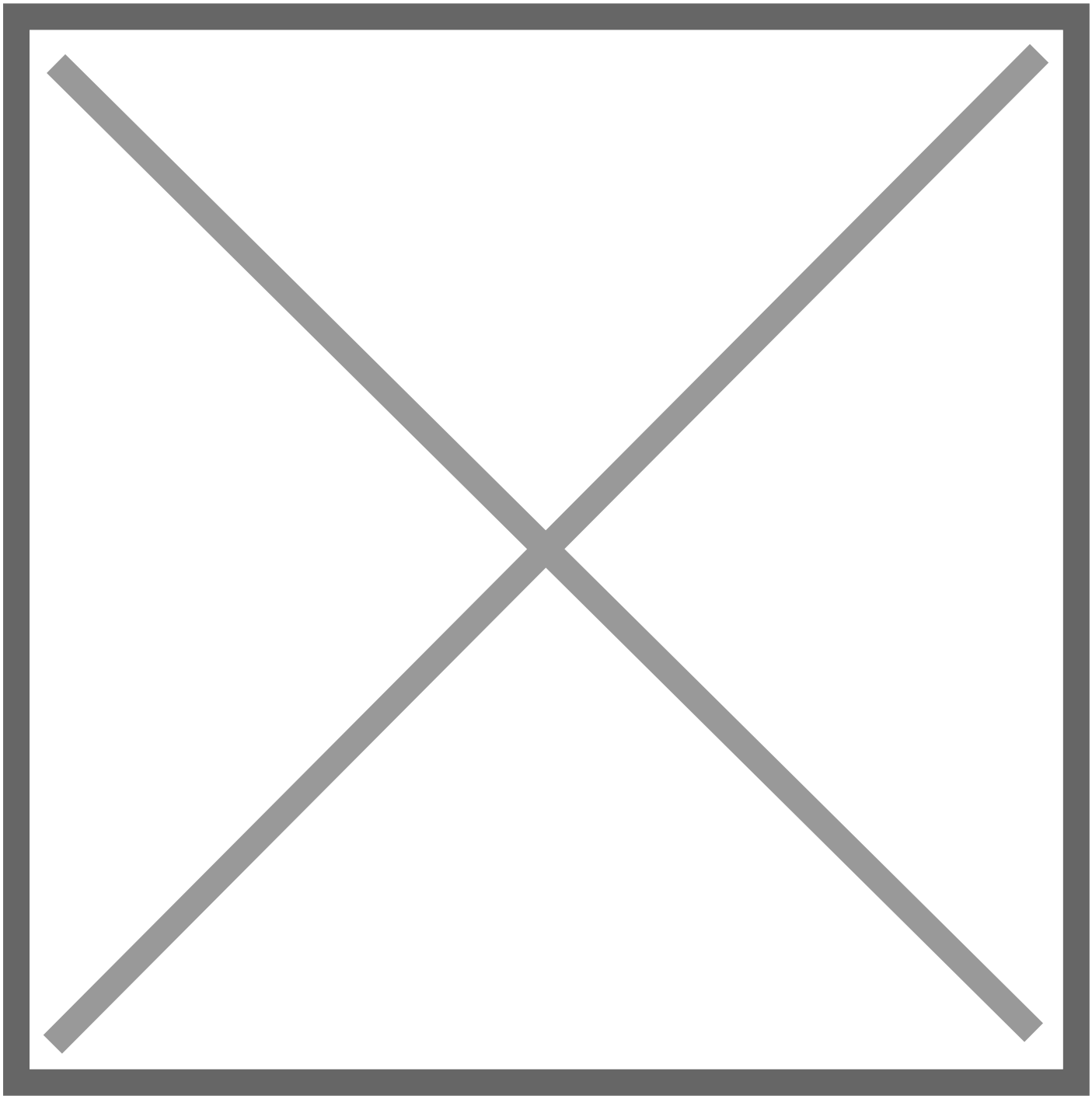
SC 400 were released in 1991 in the U.S., receiving critical acclaim and awards. Today, they are considered among Lexus' most iconic designs.



1991 Toyota Avalon Concept

The Toyota Avalon Concept, unveiled at the 1991 Tokyo Motor Show, was a show car that explored the potential of the brand's passenger sedan. Its unique silhouette and stingray-like front end broke the mold of traditional automotive styling. The car featured an innovative roof structure that allowed for dramatic configuration, with the glass panels dropping to completely cover the interior when parked and lifting to create a

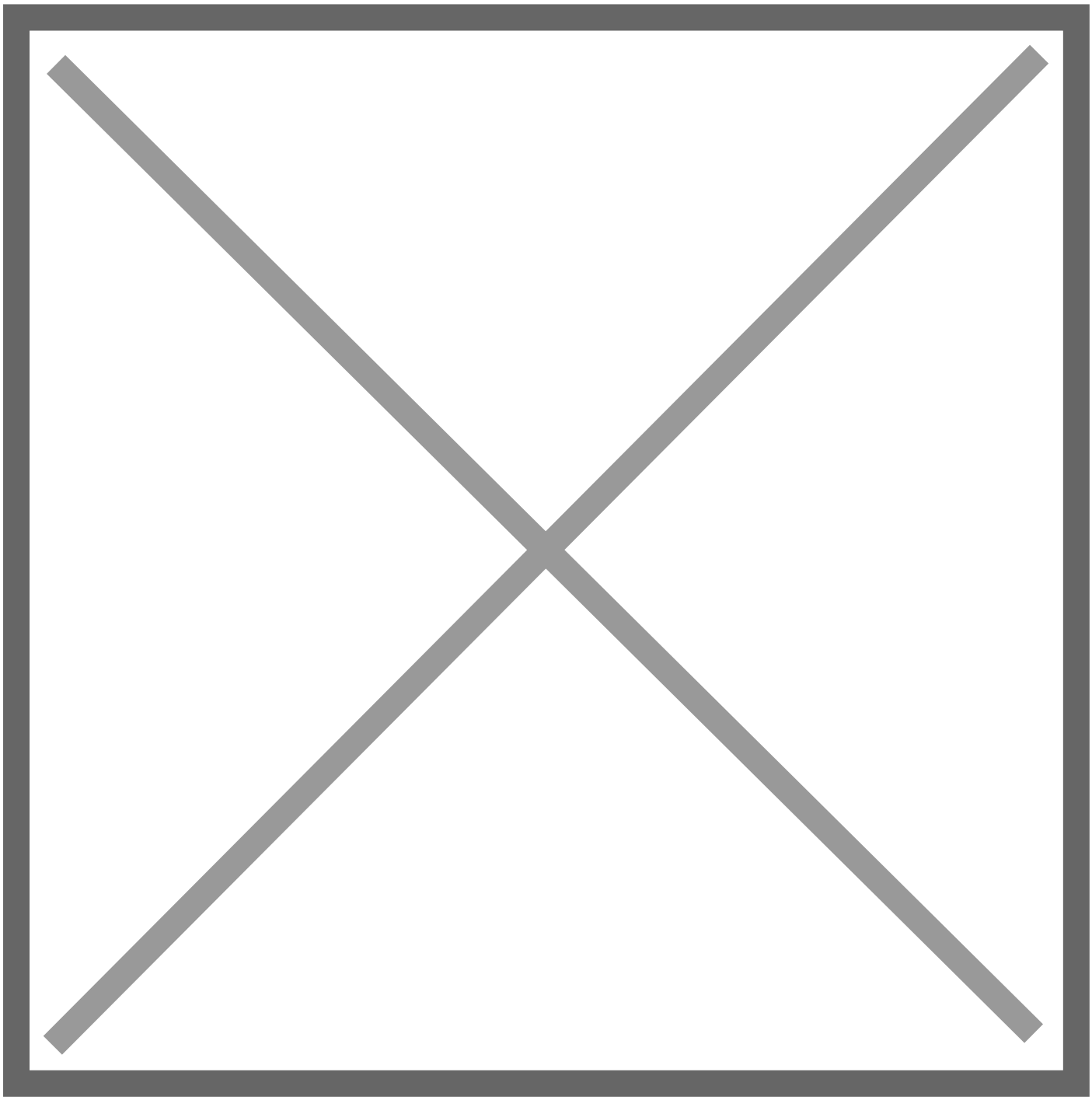
luxurious four-seat/four-door convertible when passengers stepped inside. Although it never made it to production, the Avalon Concept remains one of Calty's most eye-catching design studies.



1992 Toyota Supra Concept

The Toyota Celica Supra evolved from a performance variant of the Celica coupe to its own brand with a unique look and powerful twin-turbo engine. The designers' intent was to take the Supra in a direction of a "pure sports car," rather than continue with the previous model's Grand Touring character. They gave it a long hood, strong shoulders, and full contour surfaces with pronounced wheel flares to help give the car an aggressive sports-car

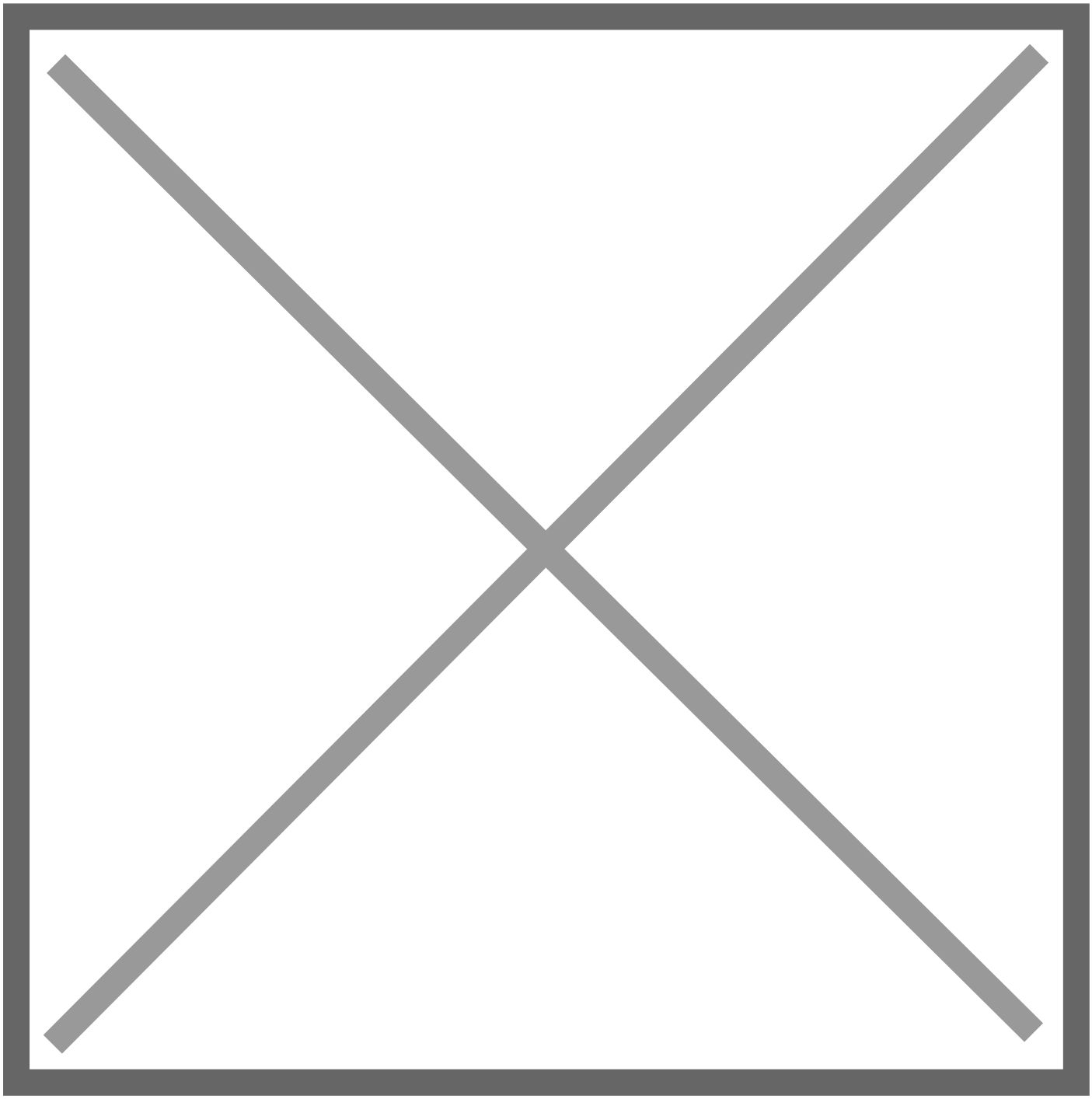
stance. Calty's advanced concept design influenced the all-new fourth-generation model (A80), which became a beloved Japanese sports car. After being discontinued in 2002, the Supra returned in 2019 as an exciting sports car designed by Calty.



2000 Toyota Celica

In 1999, Calty designed the seventh-generation Toyota Celica (T180), inspired by an abstract speed form based on an Indy race car. The design proposal was selected as a finalist in Toyota's global competition and won after a senior managing director compared it to an F-16 fighter jet. The Celica came equipped with either a 1.8-liter

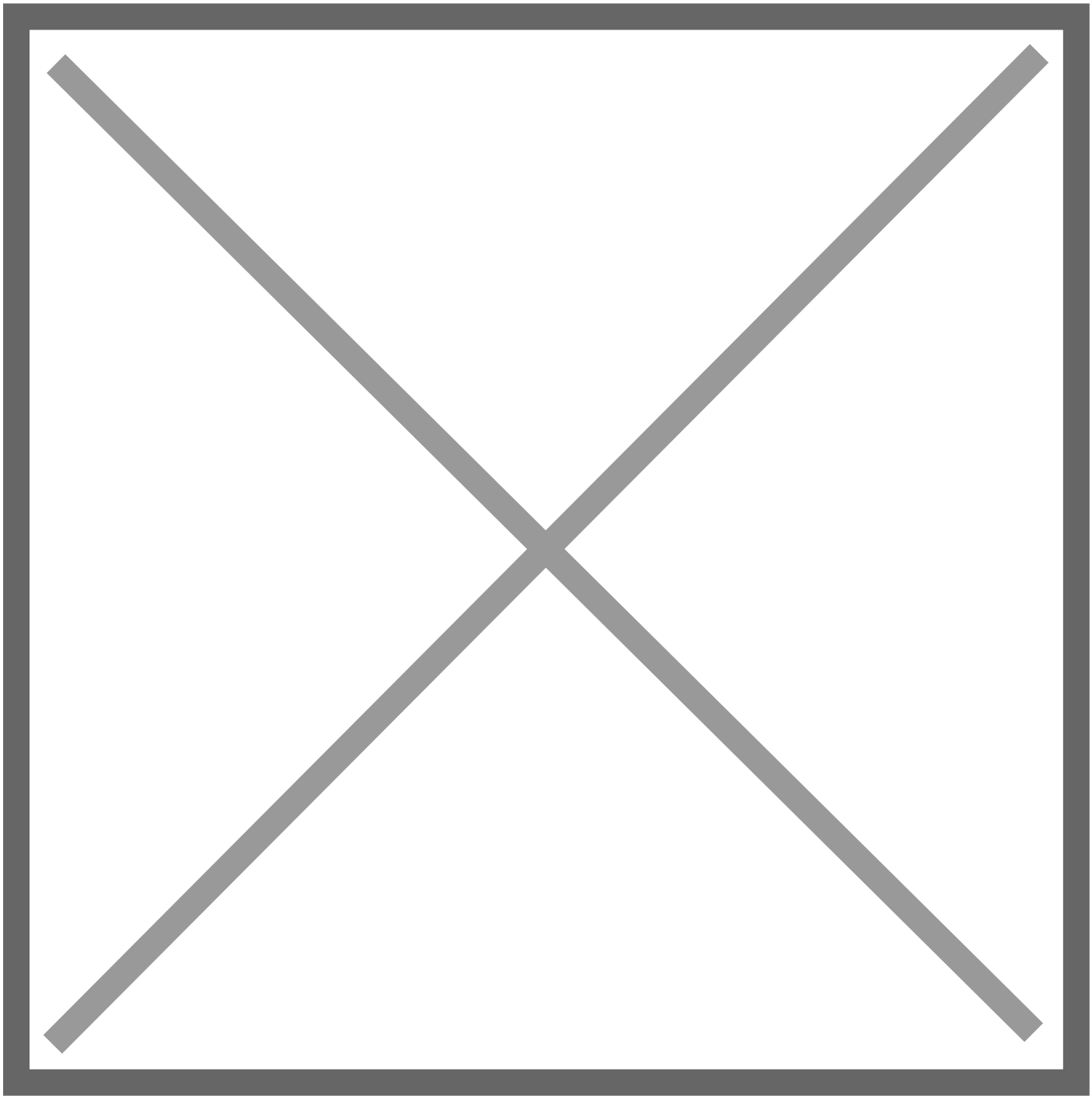
inline-4 or a high-performance 1.8-liter co-developed with Yamaha®. It became a hit worldwide but was the final Celica ever produced, ending a 36-year run in 2006.



2004 Lexus LF-C Concept

Debuting at the 2004 New York Auto Show, the Lexus LF-C concept was designed by Calty to showcase the next-gen IS sports sedan. Its standout feature was a four-position retractable hardtop that transformed the car from coupe to convertible, targa or speedster. The interior possessed drive-by-wire steering and Formula 1®-inspired shifter and steering wheel, with transparent gauges. Built on a large rear-wheel-drive platform with a

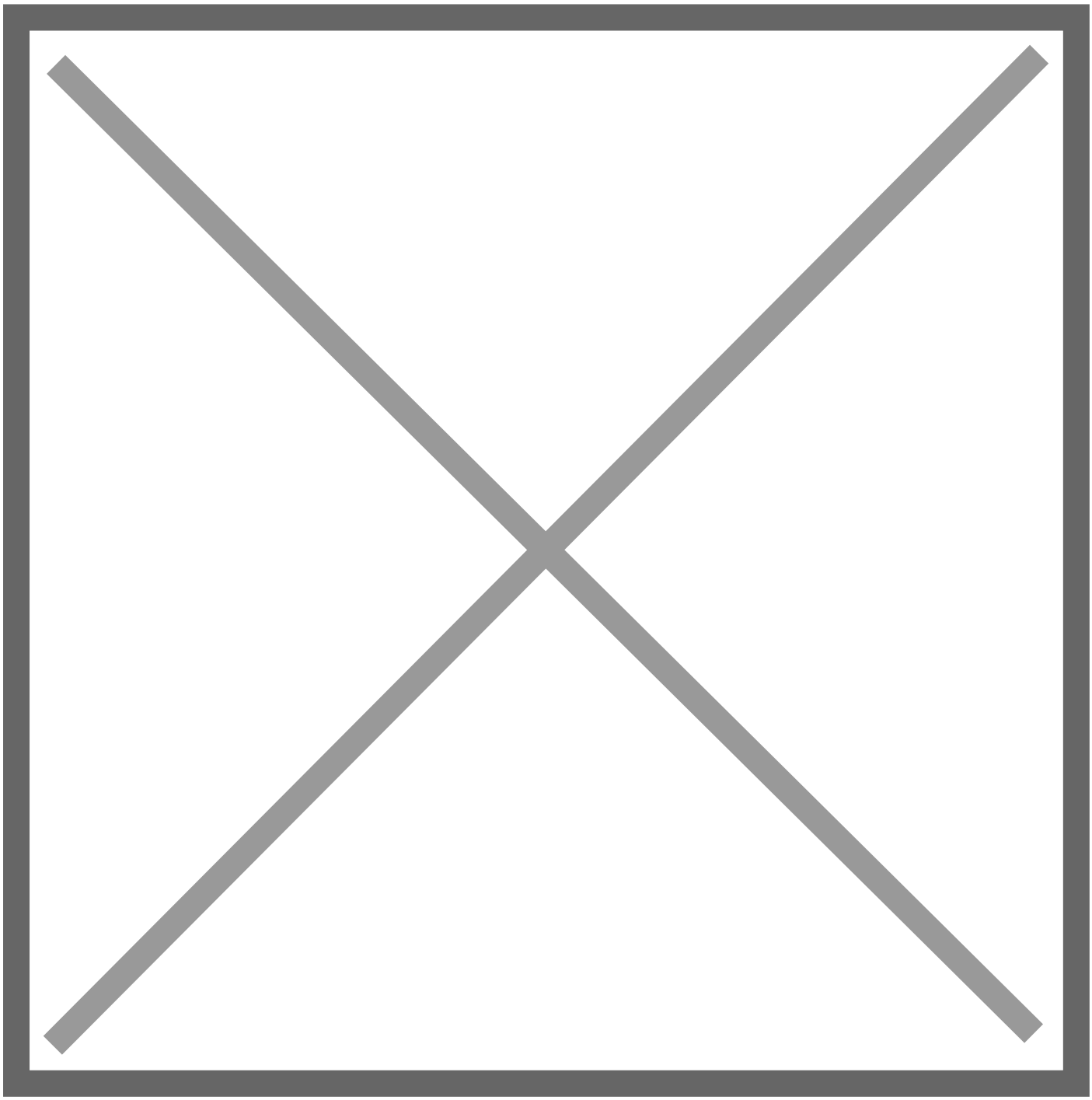
high-output V-8 engine and 6-speed sequential automatic transmission, the LF-C had a dynamic center console and wing-like instrument panels for an open feel.



2007 Toyota FT-HS Concept

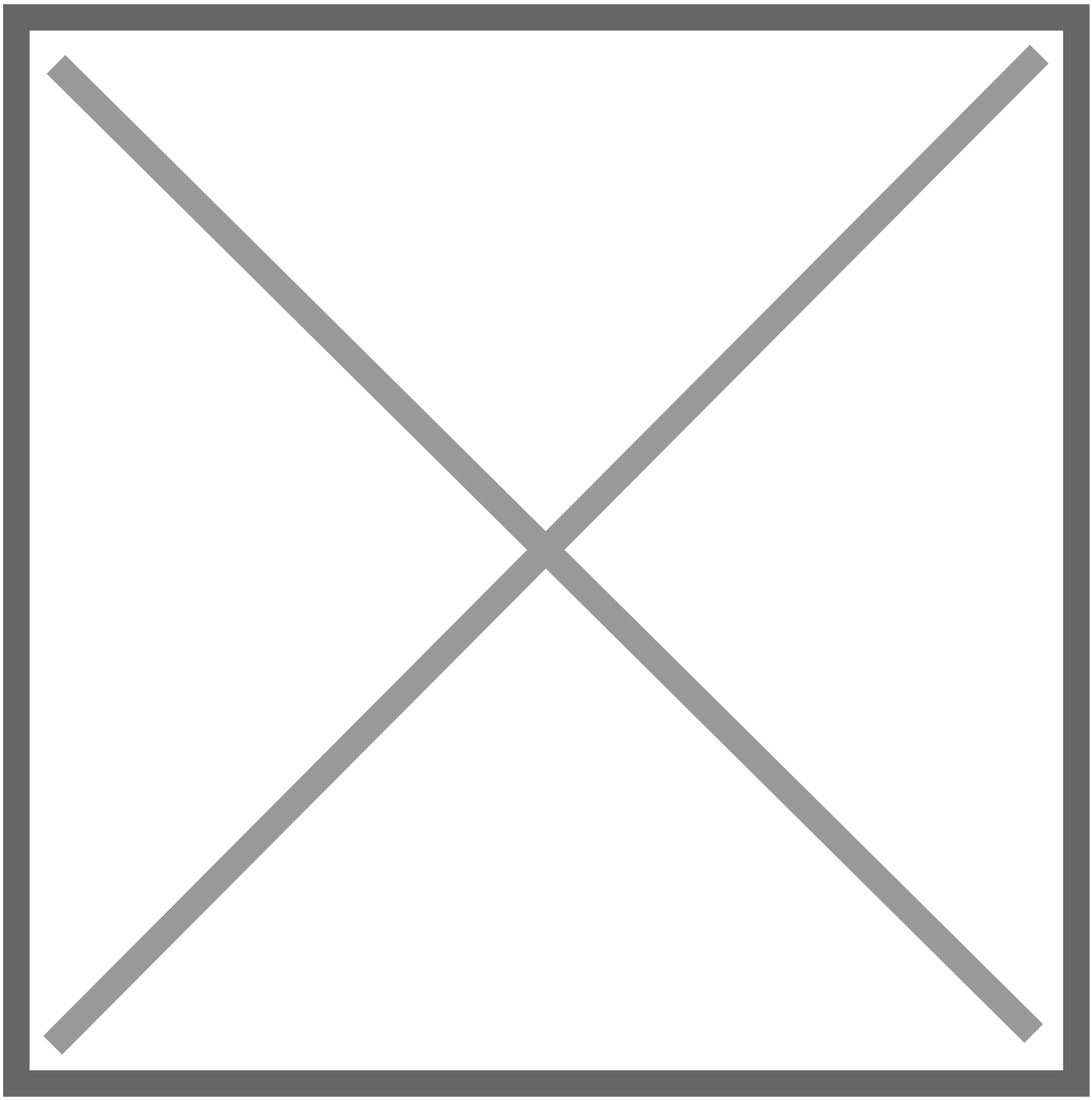
The Toyota FT-HS Concept, unveiled at the 2007 North American Auto Show (NAAS), was a collaboration between Calty, Toyota Motor Corporation (TMC) and Toyota's Advanced Product Strategy Group. The goal was to create an affordable sports car that blended ecology and emotion for the 21st century. The result was a front-engine/rear-wheel-drive 2+2 with a hybrid system producing approximately 400 horsepower and a

projected zero-to-60 acceleration time in the four-second range. The FT-HS embodied Toyota's design strategy of J-Factor and Vibrant Clarity, combining Japanese-inspired design with free-form geometrics and integrated component architecture.



2012 Scion FRS Proposal

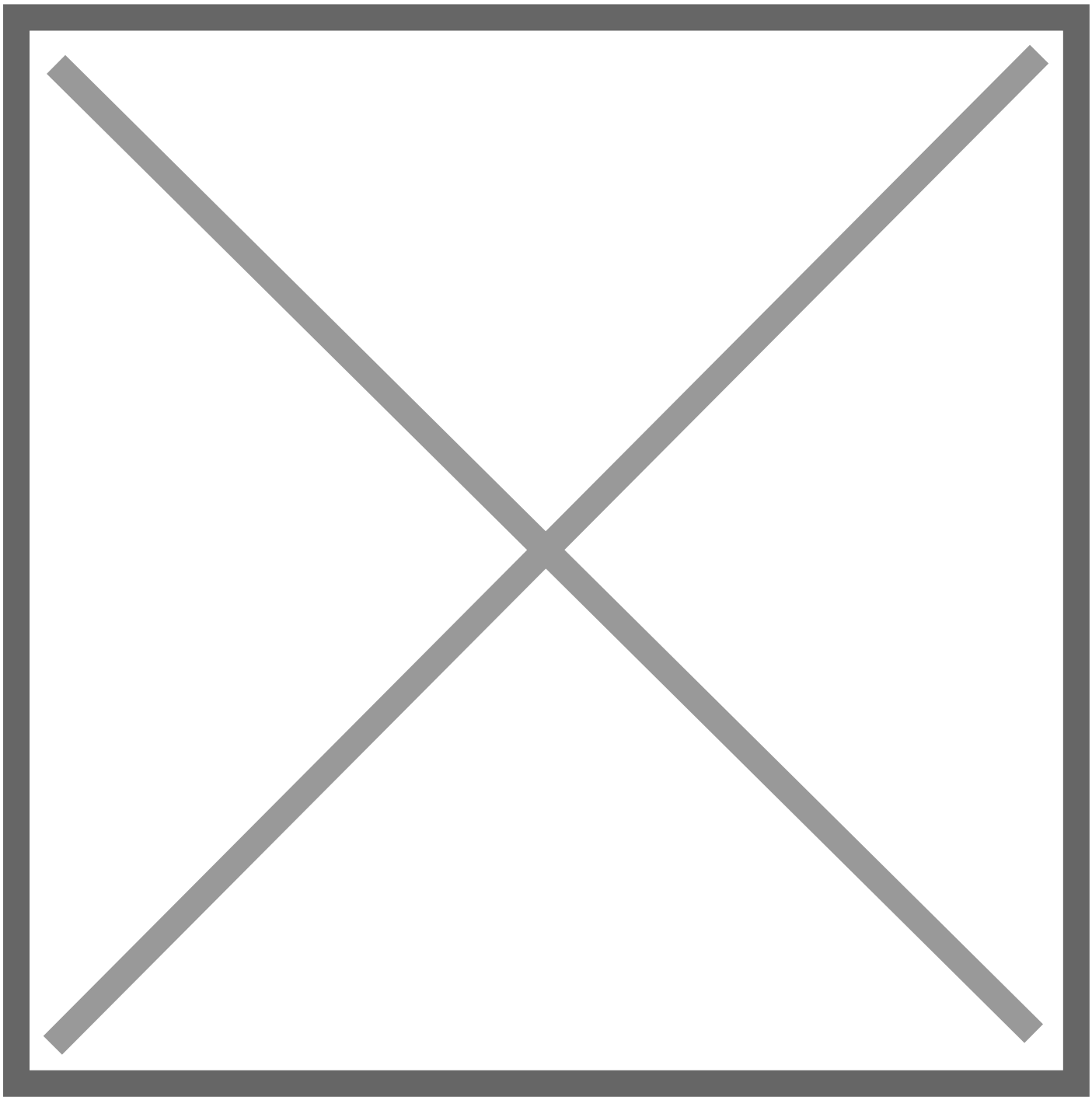
Calty's proposal for the Scion FR-S, which drew inspiration from the Toyota FT-HS show car, began with sketches and evolved into full-size models. Various elements of Calty's proposal were incorporated into the final production of the first-generation Scion FR-S/Toyota 86.



2012 Lexus LF-LC/2018 Lexus LC500
The stunning LF-LC Concept vehicle embodied Lexus' L-finesse design philosophy and marked a shift toward a more exotic and exciting brand identity. Calty's designers used new creative techniques, including "abstract shape research," to create an upscale luxury GT sports coupe with distinctive Japanese DNA.

The spindle grille was given special attention, while the cabin was stretched horizontally and embraced by muscular rear-shoulder surfaces for a unique cockpit-like window graphic. The hybrid-powered LF-LC won the EyesOn Design Award for best concept vehicle design at the 2012 NAAS, and its production version, the Lexus

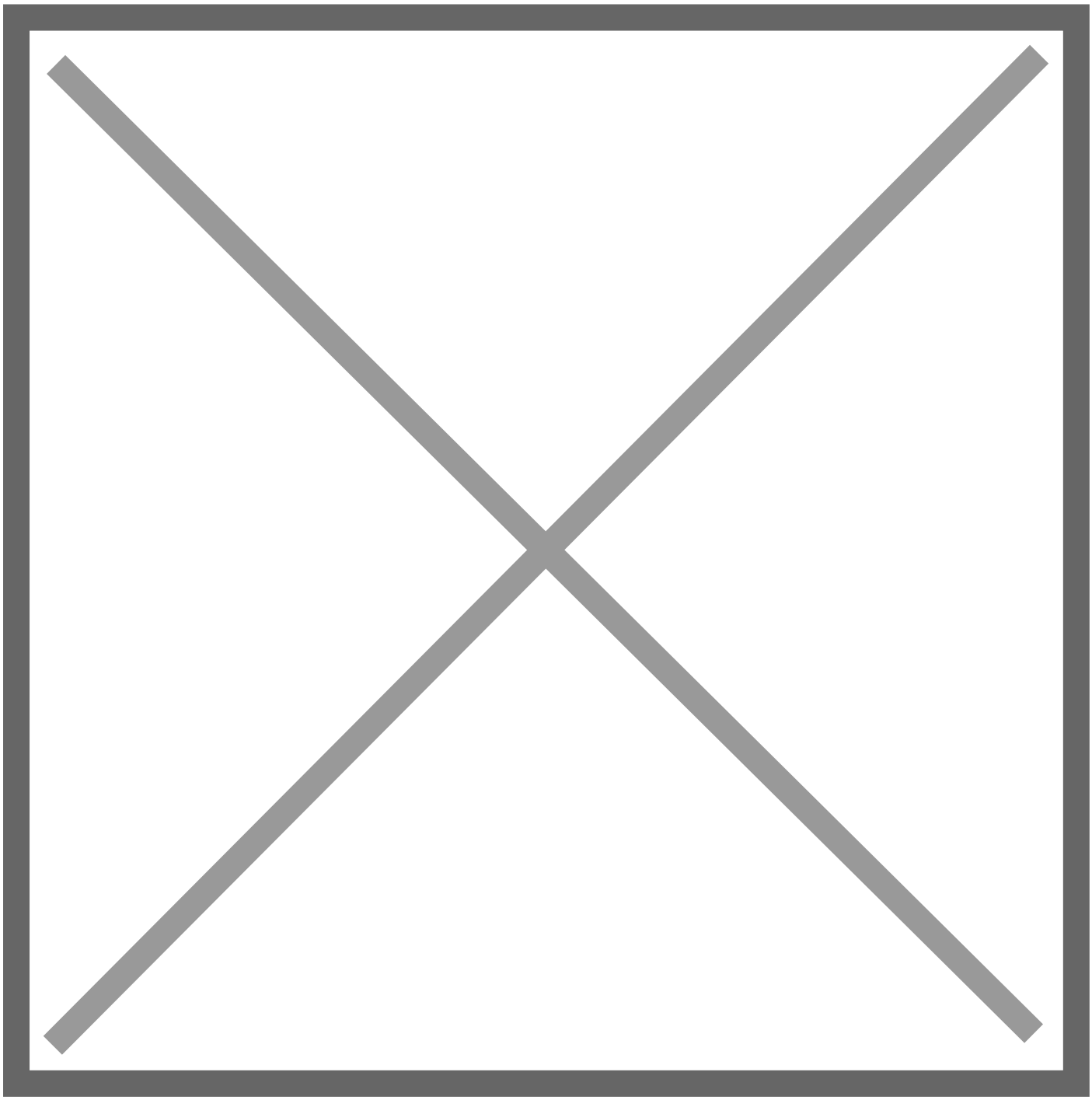
LC 500, won the best production vehicle design award in 2015. Marvel's® 2018 *Black Panther* movie was also another moment in time when the LC 500 with its beauty and unique features captured the hearts of many Lexus customers and fans alike.



2014 Toyota FT-1 Concept/2020 Toyota Supra

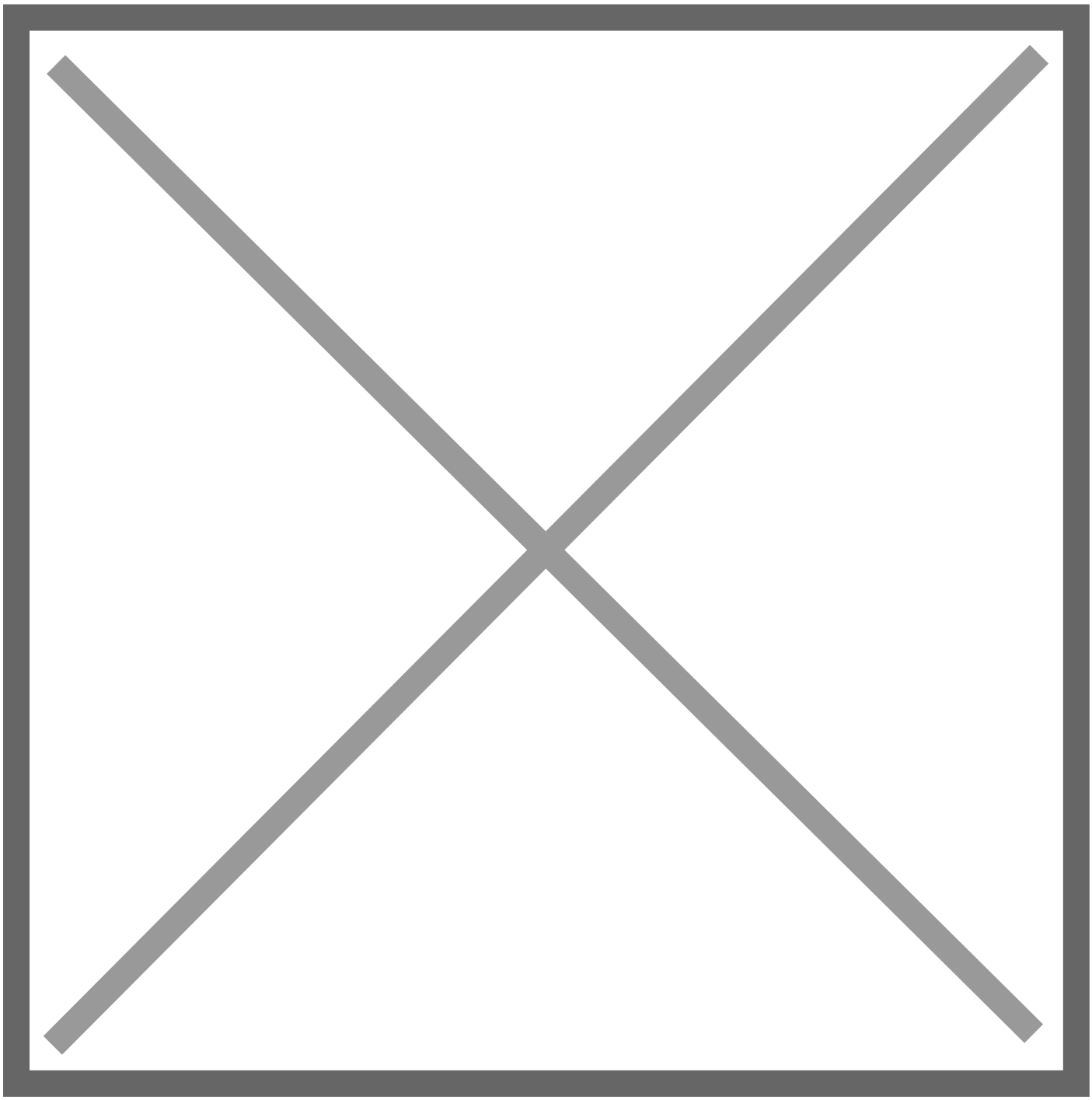
The FT-1 Concept was a passion project for Calty's designers, who wanted to create a successor to the Toyota Supra. After producing hundreds of sketches and receiving approval from then-TMC President Akio Toyoda, they developed a full-size model of the front engine/rear drive (FR) sports car with F1-inspired design elements

and track-ready features. The concept sports car possessed classic FR proportions with a “function-sculpting” design language with influence from the iconic Toyota 2000GT and fourth-generation Supra (A80). The Gran Turismo® driving game also created a digital version of the FT-1. Unveiled at the 2013 North American Auto Show, the FT-1 generated excitement and speculation that it would be the fifth-generation Supra. In 2019, the 2020 Toyota GR Supra production vehicle was unveiled, looking similar to the FT-1 and powered by an inline-6 engine producing 335 horsepower and 365 lb.-ft. of torque.



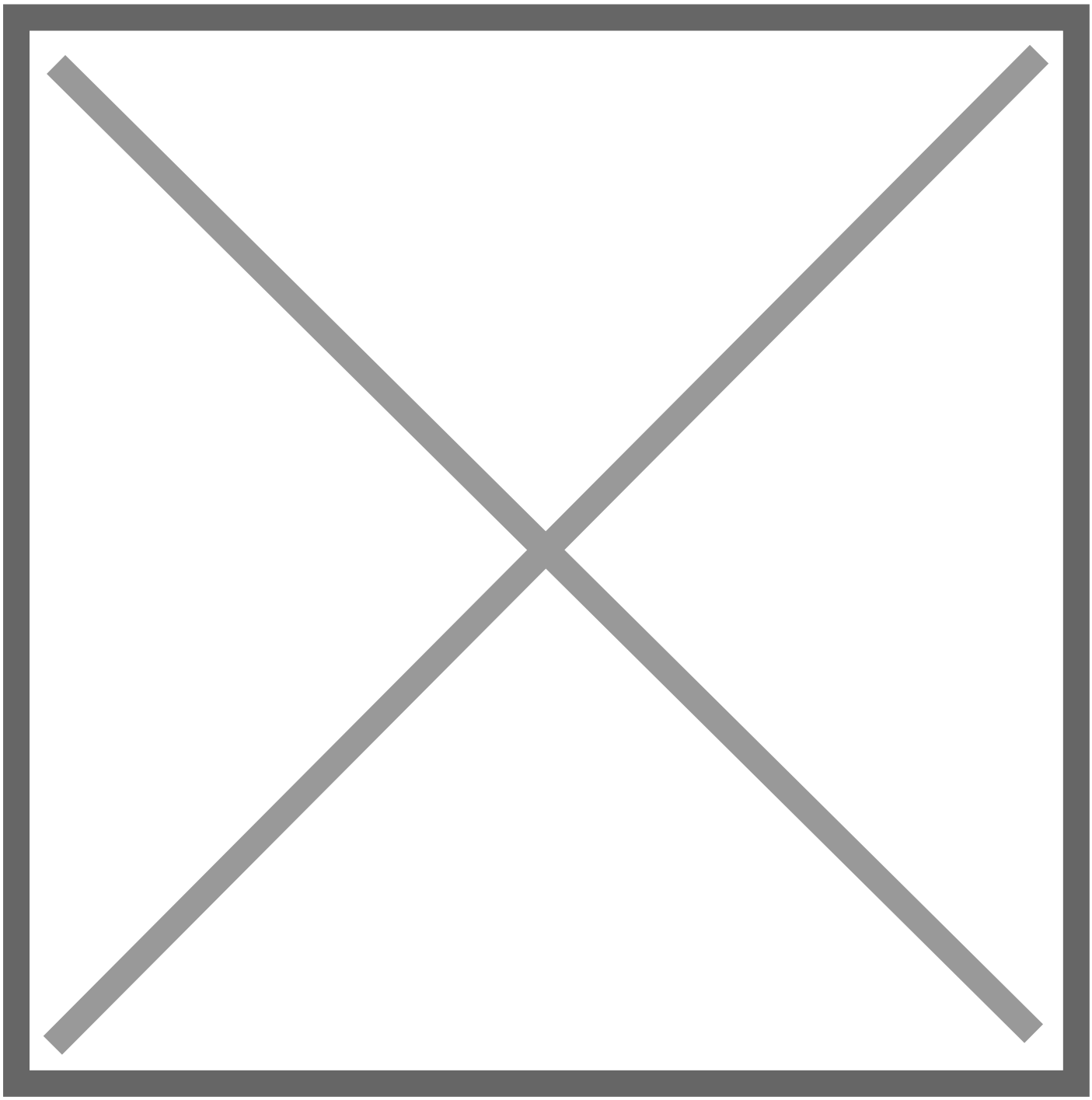
2010s Toyota GR Supra Sports Concept Proposal

Calty designed a super sports car for Toyota Gazoo Racing that utilized hybrid technology developed through the company's participation in the FIA® World Endurance Championship. The GR Super Sport Concept was intended to share many of its key components with Toyota's TS050 Hybrid race car, including a twin-turbocharged V-6 engine and a Toyota Hybrid System racing powertrain. A similar-looking car with elements of Calty's proposal was revealed at the 2018 Tokyo Auto Salon, but the GR Super Sports Concept never made it to production.



2021 Lexus Electrified Sport

In December 2021, then-TMC President Akio Toyoda unveiled a fleet of future BEV concepts, including the Lexus Electrified Sports Car set for release in 2030. Designed by Calty as the spiritual successor to the iconic Lexus LFA supercar, it was inspired by “Racing Art” and features dynamic lines. The front has a sleek grille-less design, while the rear has a unique extractor/taillight treatment. With bold proportions and a low ride height, it symbolizes the future sporting nature of the Lexus brand.



2022 Toyota GR 86

In 2012, Toyota brought back the “86” name after a 25-year absence. The car was initially called Scion FR-S but was later changed to Toyota 86 and then GR 86. Calty created a full-size model, emphasizing the authenticity of the low boxer engine and center hood.