



BMW GROUP + QUT DESIGN ACADEMY

2022 PHOTOBOOK

A collection of some of our favourite images from throughout the year. Grab a coffee, sit back and enjoy!

BMW
GROUP



A collaboration between BMW Group + Queensland University of Technology

Photo by © Jordan Domjahn

We are so excited to launch the 2022 BMW Group + QUT Design Academy Photobook! We are thrilled to feature some of the outstanding images from 2022 across our projects and initiatives including Internships, Research and Special Projects as we continue to expand our partnership with BMW Group and idealworks. As the world emerged from Covid restrictions, 2022 was a year of new beginnings for us with the official announcement of our BMW M8 Competition Coupé, the opening of our new Alpha Studio and Beta Lab spaces as well as welcoming new staff members to the team. The photos in this catalogue capture some of our achievements, projects, and experiences on our journey through this exciting partnership between QUT and BMW Group. We hope you enjoy the superb visuals!

Associate Prof. Dr Rafael Gomez
Founder + Academy Lead

BMW Group + QUT Design Academy



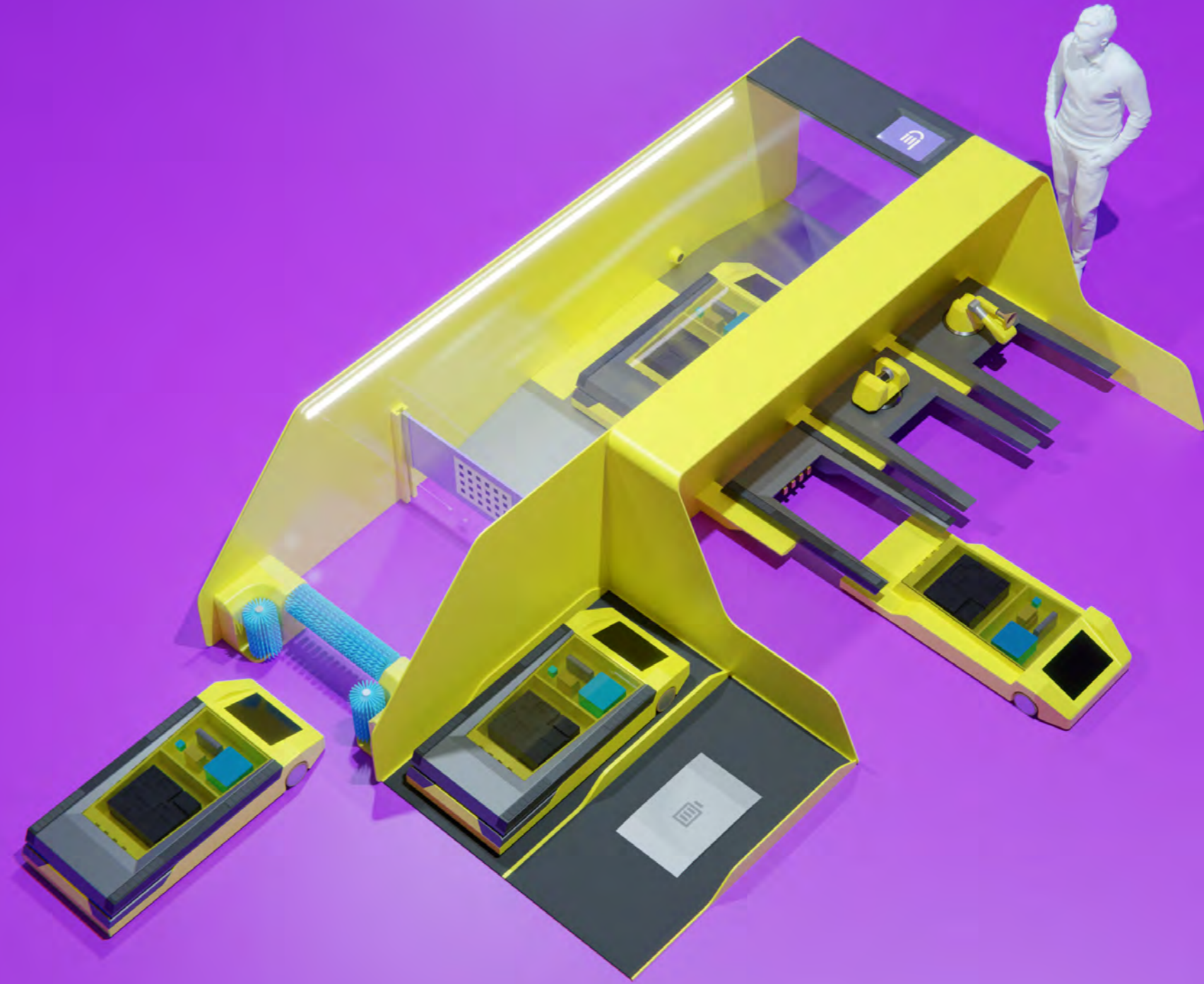
Photo by © Jordan Domjahr

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INTERNSHIPS



Future iw.hub and 'Home Base' Concept Render
Brisbane, 2022

Image by © Kenny Lin



'Traffic Assistant System' Concept Render
Brisbane, 2022

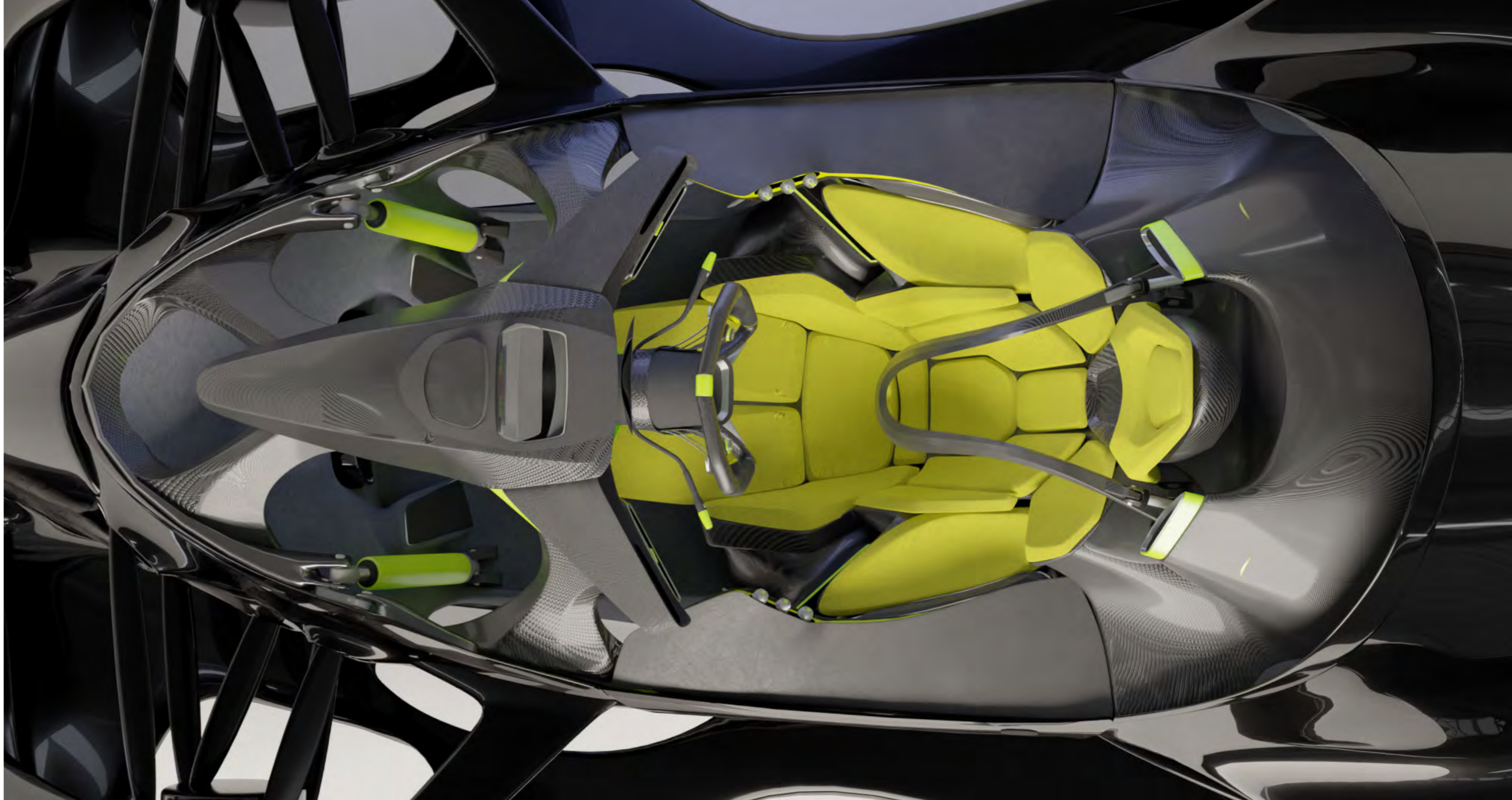
Image by © Henry Gomez-Borowski



Academy Coffee Station Concept Design Render
Brisbane, 2022

Image by © Blake McCormick





'Visceral' Futuristic Semi-Autonomous Supercar Concept Render
Brisbane, 2022

Image by © Magnus Schultz

Jack Castles + Kenny Lin: Design Project Work
Brisbane, 2022

Photo by © Jordan Domjahn



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RESEARCH



James Dwyer, our Research Associate, concluded and published his Master's research in 2022. Following on from last year, he continued to explore the theme of 'Advances in Human-Robot Interfaces for Advanced Manufacturing' with a particular focus on the role of social cues for human-robot collaboration in manufacturing settings.

The second and final year of James' scholarship included two research studies: an online survey and a Virtual Reality (VR) prototype. The survey was distributed internationally amongst people who have knowledge and experience interacting with autonomous mobile robots (AMRs). It aimed to answer the question of 'What are people's perceptions of industrial AMRs during proximate interactions in workplace settings?'. The VR prototype was created to explore James' second research question of 'How are industrial AMRs perceived when communication mechanisms derived from social cues are displayed during proximate interactions?'. Participants in this study were required to complete a set of simple tasks in the VR environment, then record their experiences and feedback via a short response survey.

James' full thesis, titled 'Using Communication Mechanisms Derived from Social Cues in Industrial Autonomous Mobile Robots to Improve Interactions', is available to read through the Publications page of the Academy website.

James Dwyer: VR Prototype Study Set-Up
Brisbane, 2022

Image by © Jordan Domjahn



James Dwyer: Virtual Reality Testing
Brisbane, 2022

Photo by © Jordan Domjahn



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**SPECIAL
PROJECTS**



In 2022 our Special Projects program accelerated massively with a number of significant projects coming our way. We were involved in work for idealworks and BMW Tech Office Munich, plus new partnerships with BMW Plant Hams Hall and the Brisbane BMW dealership.

Early in the year BMW Group published SORDI (Synthetic Object Recognition Dataset for Industries). A collaboration between BMW Tech Office Munich, idealworks, NVIDIA and Microsoft, SORDI is the world's largest synthetic dataset which accelerates artificial intelligence in production. Many of the 3D assets in the dataset have been created by Academy staff and QUT design students who were idealworks interns at the time. Our work for the SORDI initiative in 2022 included a landing page animation, an animation to promote the SORDI 2022 Hackathon, and some static renders for the website.

Epifanio Pereira: SORDI Hackathon Animation Creation
Brisbane, 2022

Photo by © Jordan Domjahn



Next Generation idealworks iw.hub Concept Render
Brisbane, 2022

Image by © BMW Group + QUT Design Academy



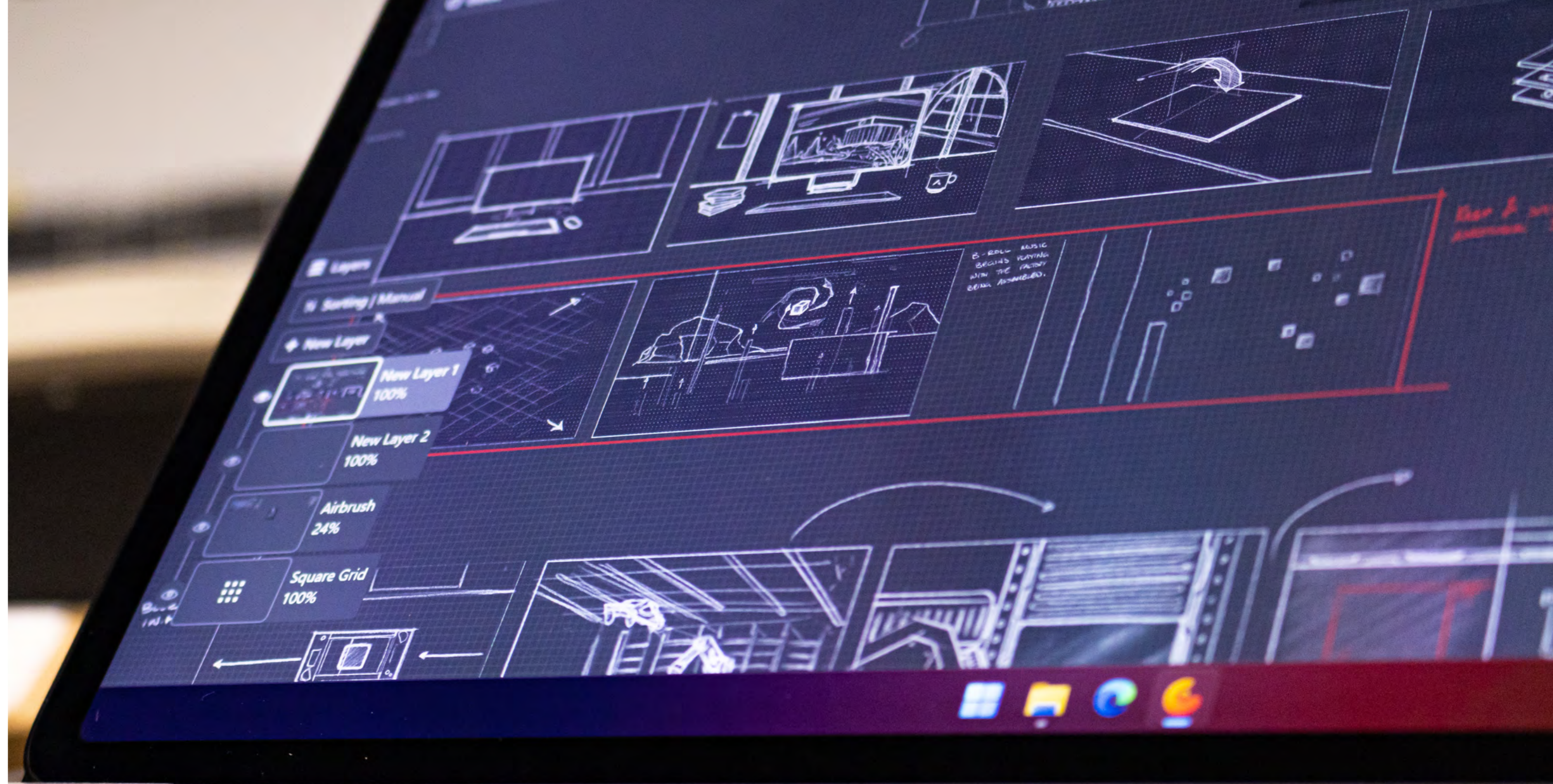
For the launch event of our M8 Competition vehicle we created some Augmented Reality (AR) and a Virtual Reality (VR) experiences for guests. The purpose was to show some of applications of the technology and highlight some of our projects and skills.

M8 Competition AR Experience
Brisbane, 2022

Photo by © Nicholas Sterkenburg



In the later part of 2022 we started one of our biggest projects to date, an animation to illustrate the 2030 future vision of Plant Hams Hall, BMW's engine production plant in the UK. Entirely CGI, this animation will outline the new production processes, autonomous technology and systems, plus sustainability initiatives that Plant Hams Hall are working towards for 2030 and beyond. This is a project that we are looking forward to sharing in the later part of 2023.



Epifanio Pereira: BMW Plant Hams Hall Future Vision Storyboard Sketches
Brisbane, 2022

Image by © Epifanio Pereira

2022 saw QUT formalise its partnership with the Brisbane BMW dealership. Through this connection the Academy was tasked with developing some AR experiences for the marketing team, as part of the local launch for the new BMW i7 vehicle. We created a handful of AR experiences which highlight technology and design elements unique to the i7. The digital animations and visuals generate interest and prompt the viewer to explore the physical vehicle in more depth.

BMW i7 AR Experience Stylised Render
Brisbane, 2022

Image by © Epifanio Pereira



BMW i7 AR Experience
Brisbane, 2022

Photo by © Brisbane BMW



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**TECHNOLOGY +
FACILITIES**



In early 2022 we moved from QUT Gardens Point campus over to QUT Kelvin Grove campus. Our footprint expanded with the arrival of our M8 Competition vehicle and we now occupy two separate rooms. The first is Alpha Studio, our office space and the primary location for our Design Associates and interns. Second to this is our research and presentation workspace, and also the location of our M8 Competition, called Beta Lab. Both of our Alpha Studio and Beta Lab workspaces have custom signage created by the Academy staff, with the initial logo design presented by a previous Academy intern.

Alpha Studio Signage
Brisbane, 2022

Photo by © Jordan Domjahn

BMW GROUP + QUT
DESIGN ACADEMY

ALPHA STUDIO

The BMW Group + QUT Design Academy Alpha Studio is a workspace focused on design and education. The Academy leverages advanced technologies to work on cutting-edge BMW Group projects and research, in addition to hosting an internship program which helps to upskill undergraduate design students.



Beta Lab Signage
Brisbane, 2022

Photo by © Mike Lepre



3D Scanning Experimentation with Artec Eva
Brisbane, 2022

Photo by © Jordan Domjahn



Wacom Cintiq Pro 27" Drawing Tablet
Brisbane, 2022

Photo by © Jordan Domjahn



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**BMW M8
COMPETITION**



The most significant milestone in 2022 for the Academy was the official announcement of the BMW M8 Competition Coupé as a design teaching and research tool. Received in 2021, the vehicle was kept hidden on campus until the new workspaces at Kelvin Grove were prepared and a launch event was organised.

During the year the M8 was removed from our Beta Lab space for the RACQ MotorFest event, which presented the perfect opportunity to take some photos of the vehicle in a large studio on campus. The following images were captured by 'light painting' the car with a large LED light stick when taking a long exposure. Some of the images are a combination of between 3–10 photographs, which have been stacked in Photoshop and different parts of the photos masked in or out to produce the final results you see here.

BMW M8 Competition Coupé
Brisbane, 2022

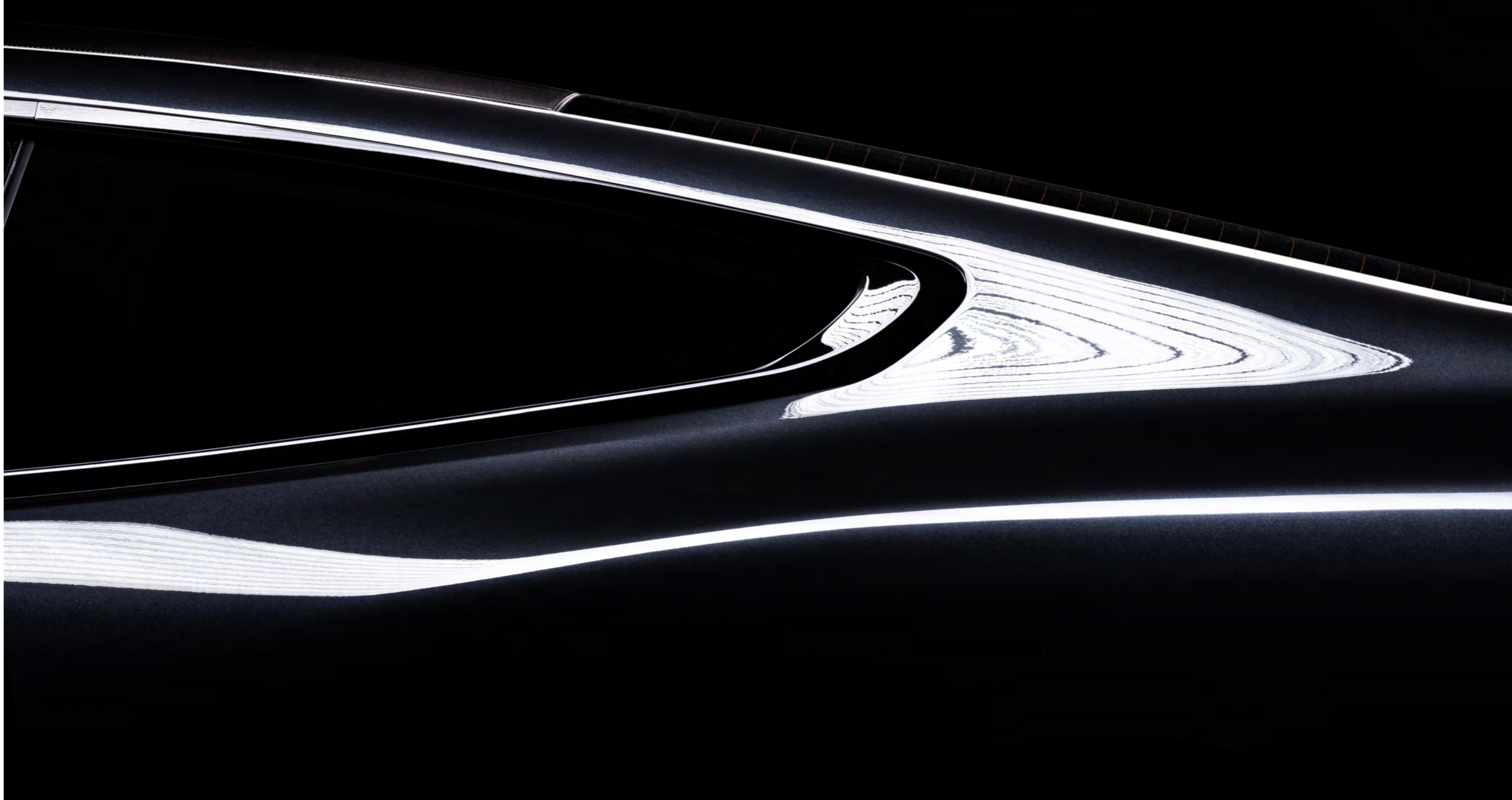
Photo by © Jordan Domjahn



BMW M8 Competition Interior Detail
Brisbane, 2022

Photo by © Jordan Domjahn





BMW M8 Competition Exterior Detail
Brisbane, 2022

Photo by © Jordan Domjahn

BMW M8 Competition Carbon Fibre Bucket Seat
Brisbane, 2022

Photo by © Jordan Domjahn



BMW M8 Competition Exterior Detail
Brisbane, 2022

Photo by © Jordan Domjahn



BMW M8 Competition Front Grille Detail
Brisbane, 2022

Photo by © Jordan Domjahn



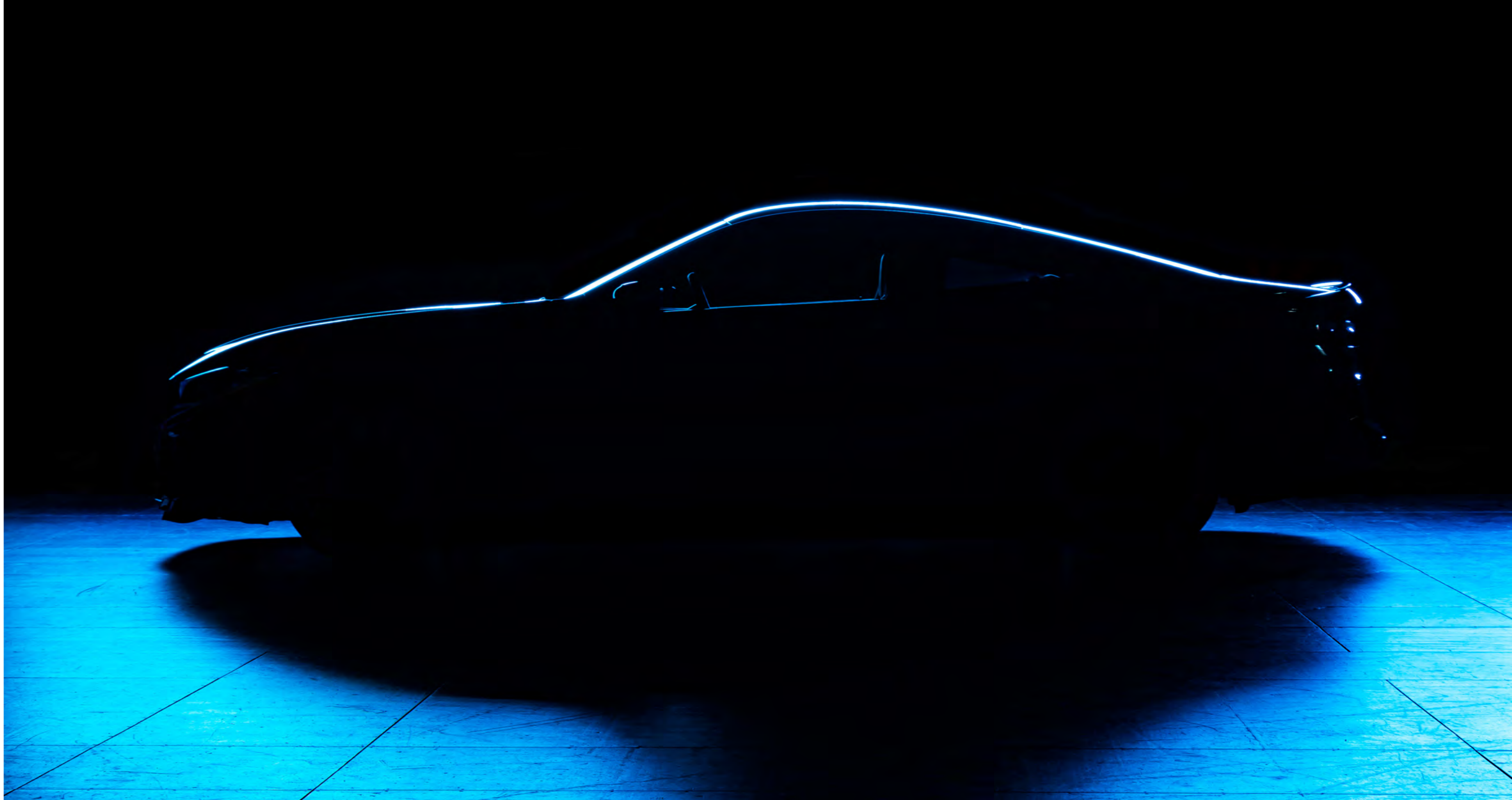
BMW M8 Competition Coupé
Brisbane, 2022

Photo by © Jordan Domjahn



BMW M8 Competition Silhouette
Brisbane, 2022

Photo by © Jordan Domjahn



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**GERMANY +
ABROAD**



In November we travelled to Germany and met with our colleagues and key contacts within BMW Group to discuss future plans and growth of the Academy, how we can create new student opportunities and continue to support BMW Group on their projects. While in the country we had some time to enjoy Munich and Berlin, while also exploring the stunning alpine landscapes that Germany has to offer.

Sunset in Englischer Garten
Munich, 2022

Photo by © Jordan Domjahn



Zugspitze Peak and Surrounds
Bavarian Alps, 2022

Photo by © Jordan Domjahn



Eibsee Lake and Zugspitze Peak
Bavarian Alps, 2022

Photo by © Jordan Domjahn



Zugspitze Peak and Surrounds
Bavarian Alps, 2022

Photo by © Jordan Domjahn



Brandenburg Gate
Berlin, 2022

Photo by © Jordan Domjahn



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**EVENTS +
ADVANCEMENT**



In March we officially unveiled the BMW M8 Competition Coupé to a large number of distinguished guests from QUT, external companies and partners, the German Consulate, the Brisbane BMW dealership, and some of our family. The launch included speeches from Prof Margaret Sheil, QUT Vice-Chancellor and President; Mr Axel Zeidler, German Consul-General; Jimmy Nassif, CTO idealworks and Associate Prof Rafael Gomez, Founder & Head of the BMW Group + QUT Design Academy.

The highlights video from the event is visible on the Overview page of the Academy website.

M8 Competition Unveiling Event
Brisbane, 2022

Photo by © Nicholas Sterkenburg



M8 Competition Unveiling Event
Brisbane, 2022

Photo by © Nicholas Sterkenburg



In September we hosted 30 high school students participating in the QUT Future You STEM Summit program. The students completed a taster session that we created, where they were tasked with designing and pitching a future mobility solution relating to themes such as safety, user experience and the application of emerging technologies.



Academy Future You STEM Summit Design Workshop
Brisbane, 2022

Photo by © Jordan Domjahn

Approached by the QUT Reality Labs student club, we hosted a showcase event and presented our AR and VR experiences that we developed as part of our M8 Competition announcement event from earlier in the year. This included the process, tools used and some of the key learning outcomes.



QUT Reality Labs Presentation and Showcase
Brisbane, 2022

Photo by © QUT Reality Labs

During the year we attended the RACQ MotorFest event, a large annual event that celebrates all things automotive. We were invited to exhibit in the Future Zone section with our M8 Competition vehicle. Our focus was on promoting our projects and research work with BMW Group on defining the future of mobility and production to the broader public. A lot of people were interested in hearing about the kind of work we do, and also wanting to know more about the incredible M8.

RACQ MotorFest Display
Brisbane, 2022

Photo by © Mike Lepre



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PEOPLE



In 2022 the Academy team increased with Mike Lepre and Mohammad (Mo) Faramazian coming on board. Mike assists with technical and management aspects of our operations — particularly with the M8 Competition — plus our assets and facilities. Mo joined the team for 3 months while completing an industry internship as part of his PhD scholarship. Mo assisted with the Special Projects program and shared his extensive Augmented Reality and animation knowledge with the Academy team.

We were unable to officially resume our BMW Group Internship program in 2022, however 2021 Academy Intern Søren Waldmann was able to secure a position at idealworks. Søren was born in Germany and already had plans to move back to Munich. Fortunately, idealworks had a design intern position available and accepted Søren into the team for the year.



Søren Waldmann
2022 Design Intern, idealworks



Mike Lepre
Technical Associate



Dr Rafael Gomez
Founder + Academy Lead



Jordan Domjahn
Design Associate



Timothy Lim
Junior Design Associate



Epifanio Pereira
Junior Design Associate

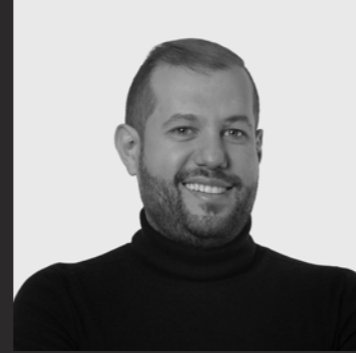


James Dwyer
Research Associate (MPhil)



Mohammad Faramazian
Design Associate Intern

We continue to maintain close communications with various people and teams throughout BMW Group. Our primary contacts are at idealworks, Tech Office Munich, the Digital Products Department, and now Plant Hams Hall. Dr Christian Poss accommodated a handful of BMW design interns from QUT during his previous role in Germany in Logistics Robotics. He now works closely with us through his new role in England at Plant Hams Hall.



Jimmy Nassif
Chief Technology Officer, idealworks



Marc Kamradt
Head, Tech Office Munich



Alexandra Tran
Infotainment Innovation Manager, BMW



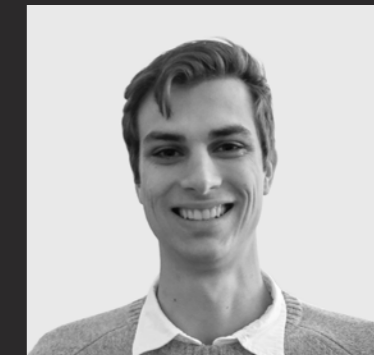
Dylan Sheppard
Digital Design Lead, idealworks



Chafic Abou Akar
Tech Lead, Tech Office Munich



Dr Christian Poss
Digitalization & Innovation Manager, Hams Hall



Filippo Frulli
DevOps & Cloud Engineer, BMW

Key BMW Group Contacts
BMW Group Staff

Our Internship Program continues to be a popular opportunity for QUT design students, and successful in supporting them with their personal and professional skill development. We accepted another four Work Integrated Learning interns each semester, and took on three additional students for a one-off summer semester internship due to so many quality applications.

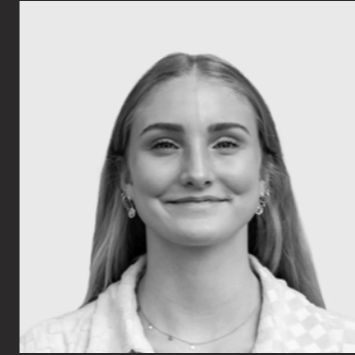
Academy 2022 WIL Interns
QUT Design Students



Ashley Fenton
Semester 1



Henry Gomez-Borowski
Semester 1



Elizabeth Moss
Semester 1



Magnus Schultz
Semester 1



Natalie Smith
Semester 2



Jack Castles
Semester 2



Bianca Durcau-Vaida
Semester 2



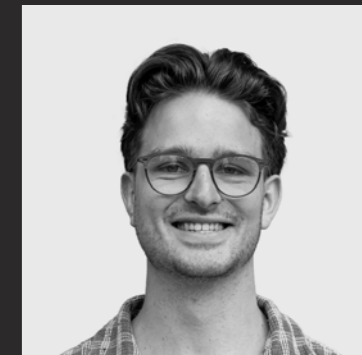
Kenny Er Kang Lin
Semester 2



Jake Day
Summer Semester 2022-23

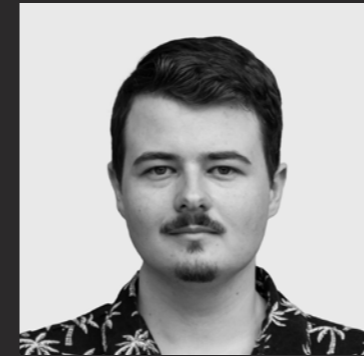


James Boughen
Summer Semester 2022-23



Kilian Frunz
Summer Semester 2022-23

Academy 2022 Impact Lab 4 and Industrial Design Capstone unit students
QUT Design Students



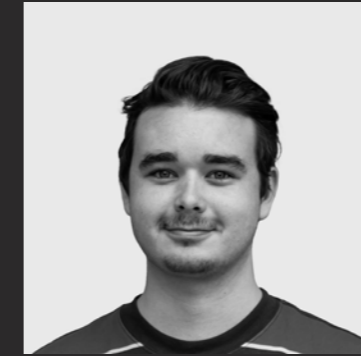
Ethan Brown
Impact Lab 4, Semester 1



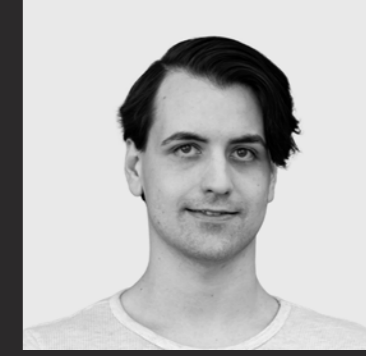
Tyler Hocking
Impact Lab 4, Semester 1



Harrison Newberry
Impact Lab 4, Semester 1



Toby Benson
Impact Lab 4, Semester 1



Blake McCormick
Impact Lab 4, Semester 2



Jordan Sheather
Impact Lab 4, Semester 2



Leo Liang
ID Capstone, Semester 2

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**EXTRA
COLLECTION**





BMW M8 Competition
Photo by © Jordan Domjahn, 2022



Sunset in Englischer Garten, Munich
Photo by © Jordan Domjahn, 2022



Dylan Sheppard: M8 Competition Unveiling Event Highlights Video BTS
Photo by © Nicholas Sterkenburg, 2022



BMW i7 Detail Shot
Photo by © Jordan Domjahn, 2022



SORDI Hackathon Animation Frame
Image by © Epifanio Pereira, 2022



iw.hub Testing at idealworks Warehouse in Munich
Photo by © Jordan Domjahn, 2022



BMW M8 Competition Detail Shot
Photo by © Jordan Domjahn, 2022



BMW M8 Competition Augmented Reality Experience
Photo by © Jordan Domjahn, 2022



Beta Lab Signage
Photo by © Jordan Domjahn, 2022



Henry Gomez-Burowski: Concept Sketches
Photo by © Jordan Domjahn, 2022



BMW i7 Vehicle
Photo by © Brisbane BMW, 2022



Königssee Lake, Bavaria
Photo by © Jordan Domjahn, 2022



QUT Reality Labs Presentation and Showcase
Photo by © QUT Reality Labs, 2022



BMW M8 Competition Detail Shot
Photo by © Jordan Domjahn, 2022



Kenny Lin: Concept Sketches
Photo by © Jordan Domjahn, 2022



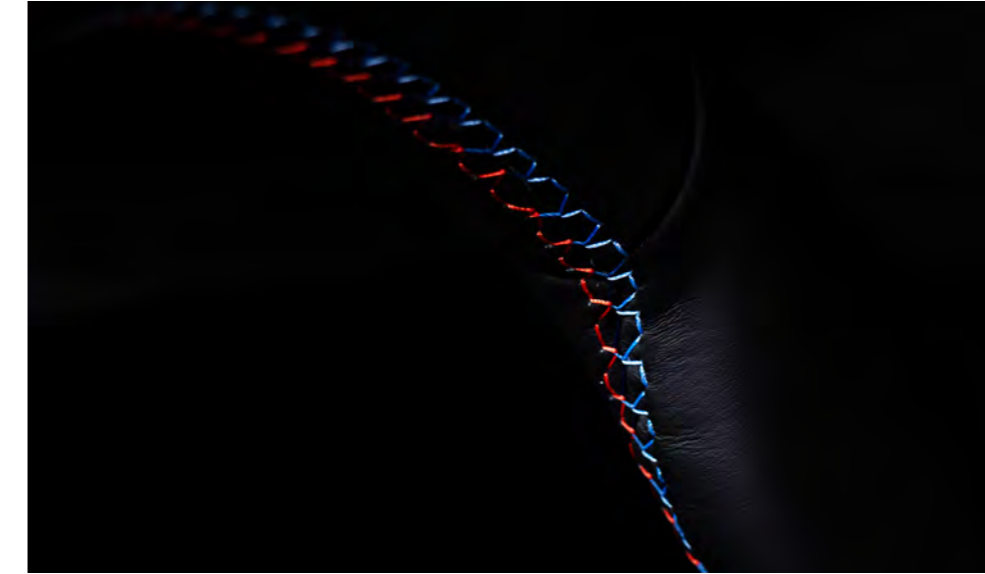
BMW M8 Competition Headlight Detail
Photo by © Jordan Domjahn, 2022



BMW M8 Competition Leather Key Cover
Photo by © Jordan Domjahn, 2022



3D Scanning the M8 Competition Interior
Photo by © Jordan Domjahn, 2022



BMW M8 Competition Detail Shot
Photo by © Jordan Domjahn, 2022



Interacting with the BMW M8 Competition
Photo by © Jordan Domjahn, 2022



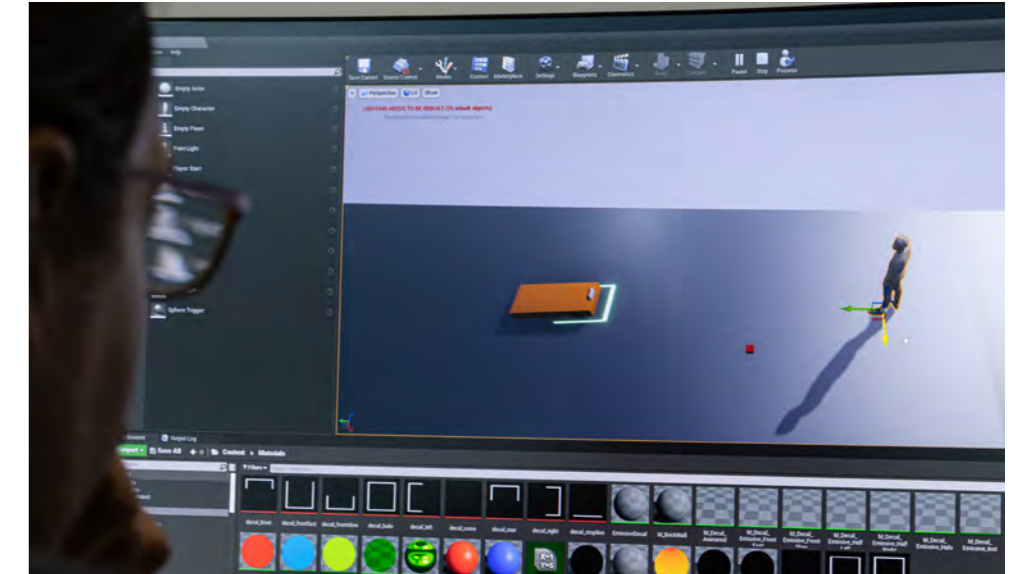
Magnus Schultz: Gravity Sketch VR Modelling
Photo by © Jordan Domjahn, 2022



BMW M8 Competition
Photo by © Jordan Domjahn, 2022



BMW M8 Competition Unveiling Event
Photo by © Nicholas Sterkenburg, 2022



James Dwyer: VR Prototype Study Creation
Photo by © Jordan Domjahn, 2022

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