

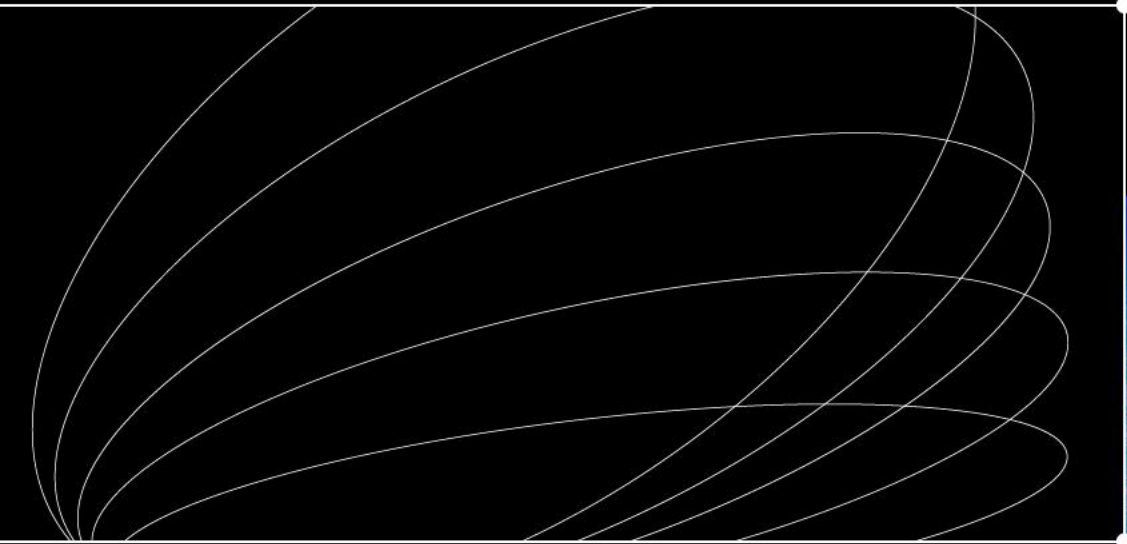


# K KETHEC

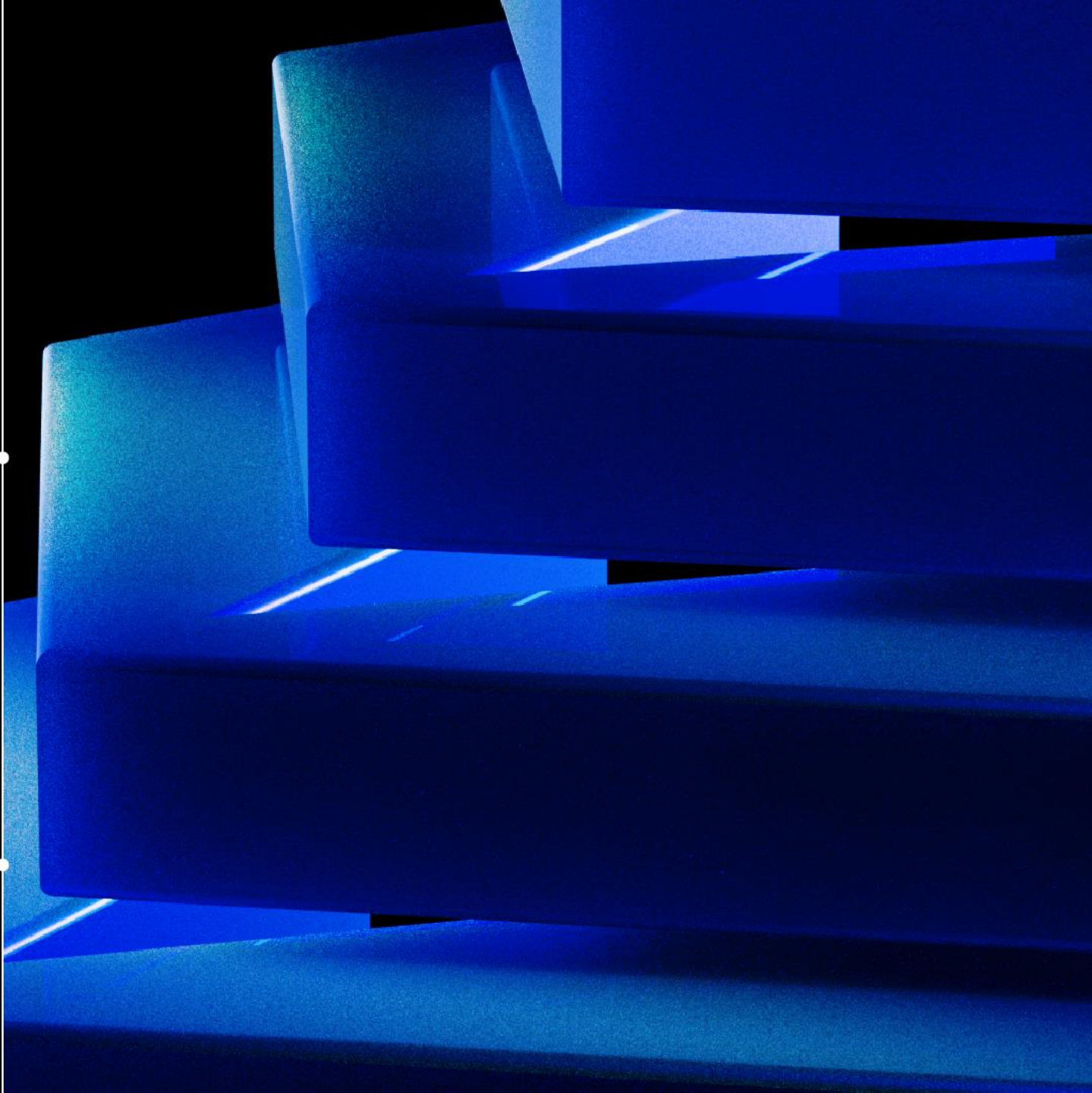
ENGINEERING & DESIGN \* ENGINEERING & DESIGN \* ENGINEERING & DESIGN



# OUR VISION



 KETHEC



OUR VISION

OUR VISION IS TO CREATE A SPACE WHERE  
PEOPLE CAN FULLY REALIZE THEIR POTENTIAL.  
ALIGNING WITH OUR PURPOSE OF DELIVERING  
INNOVATIVE ENGINEERING SOLUTIONS.

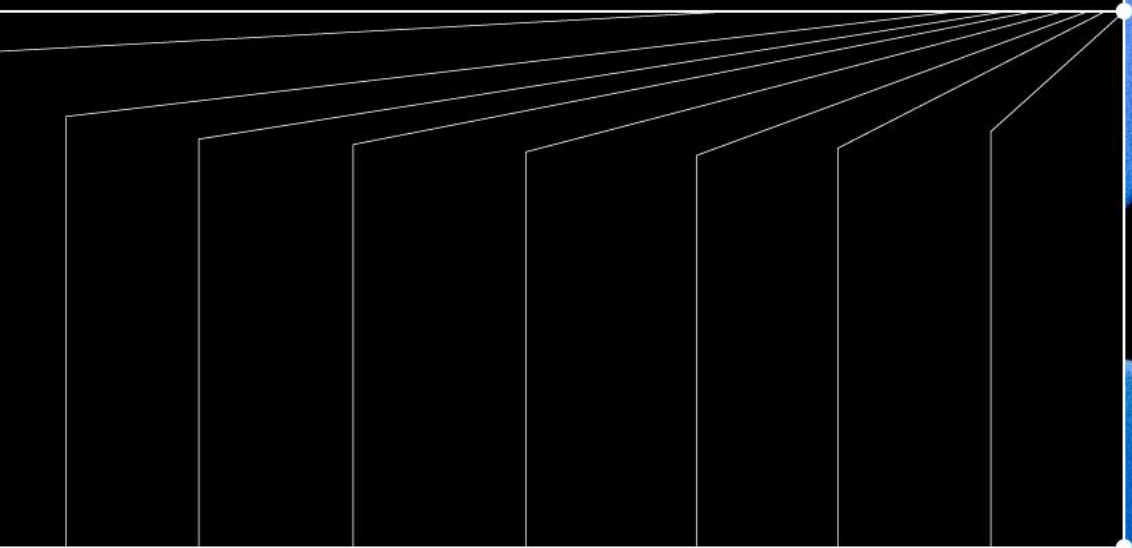
Kethec Engineering & Design is dedicated to providing top-tier engineering solutions for complex, highly specialized projects across a range of industries. With a mission to empower innovation, we combine advanced technologies, expertise, and a customer-centric approach to bring concepts to life—from initial design to production-ready solutions. We exist because we provide companies and OEMs with an engineering solutions department and external R&D with multidisciplinary professionals and state-of-the-art software.

OUR VALUES

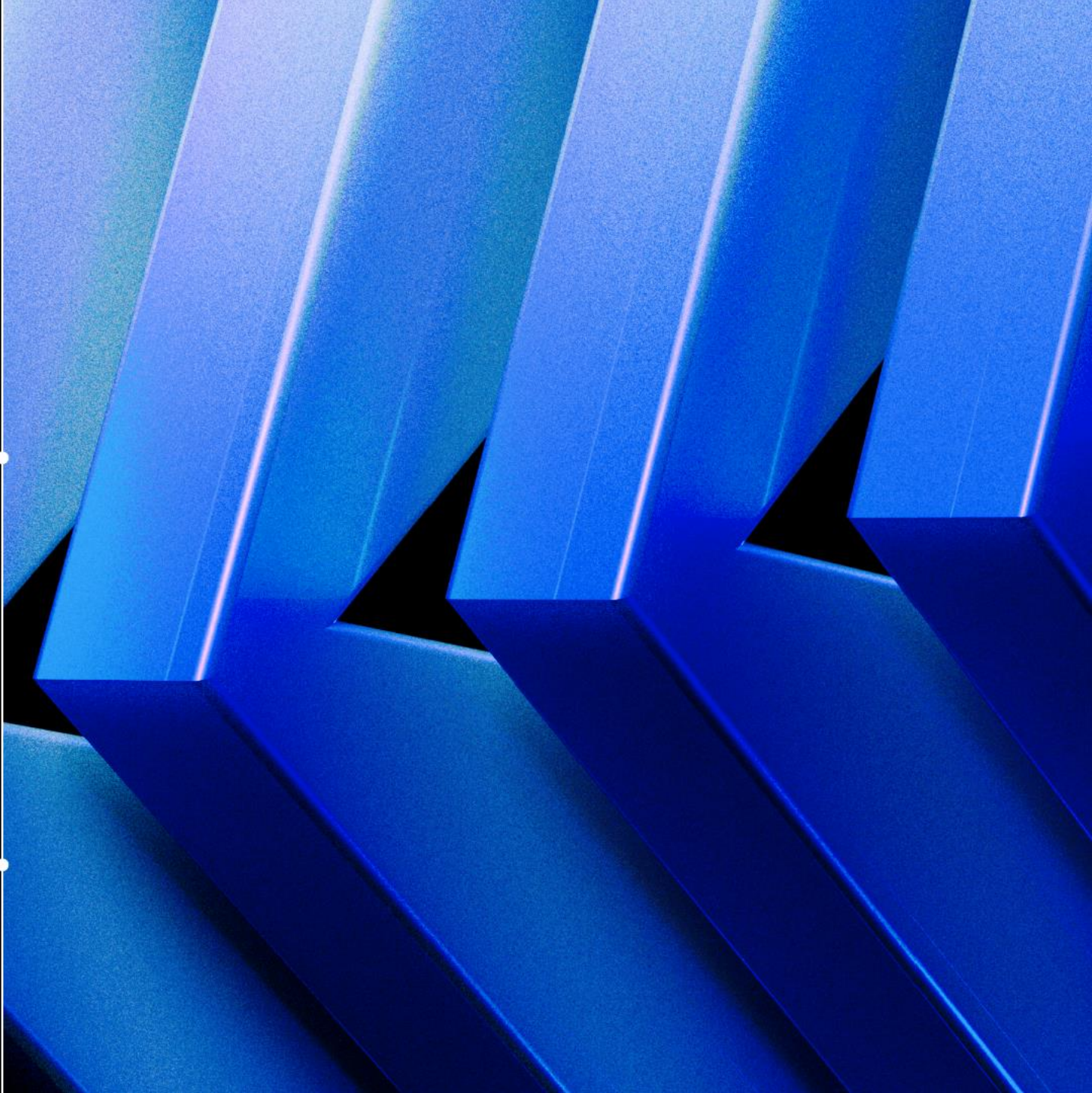
- \* EXCELLENCE
- \* INNOVATION
- \* AUTHENTICITY



# OUR SOLUTIONS

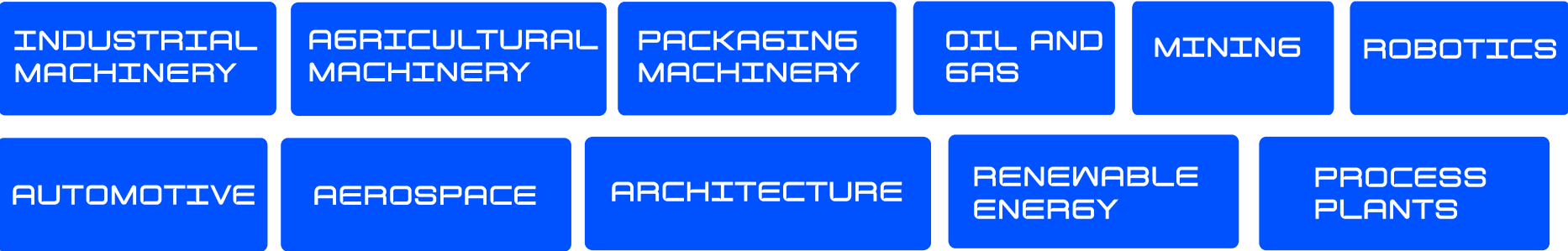


 KETHEC



OUR SOLUTIONS

OUR SOLUTIONS SERVE CRITICAL  
SECTORS, INCLUDING:

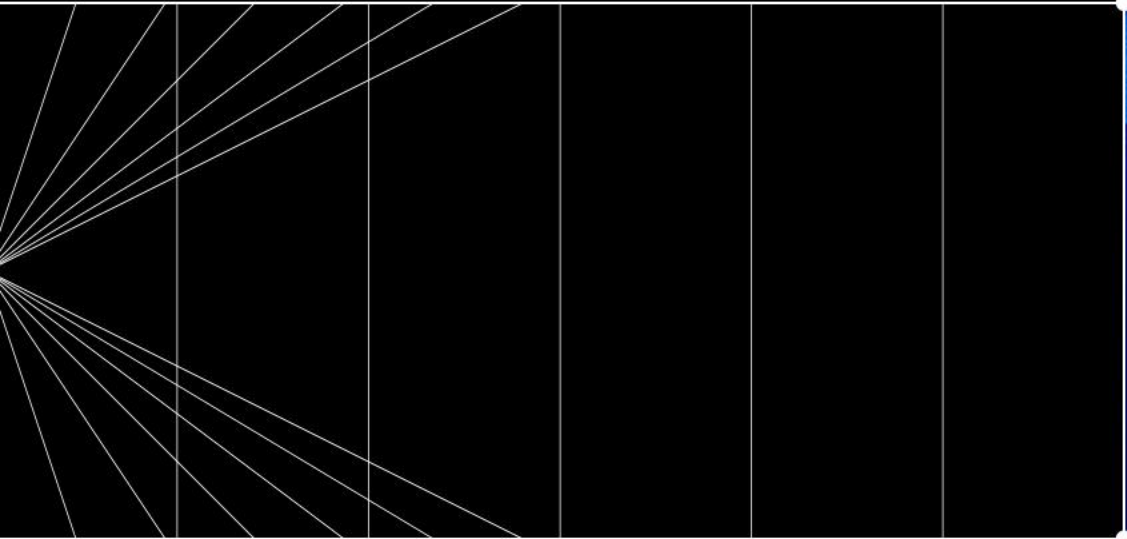


CONFIDENTIALITY  
POLICY

Protecting your right to privacy and confidentiality is one of our company's main concerns. We know that you want to know how your personal data is collected and used, and that you want to be able to decide, having been provided with the necessary information, how it will be used, limiting the possible uses if you consider it necessary. With our services, companies will have the opportunity to have their confidentiality and data safe.

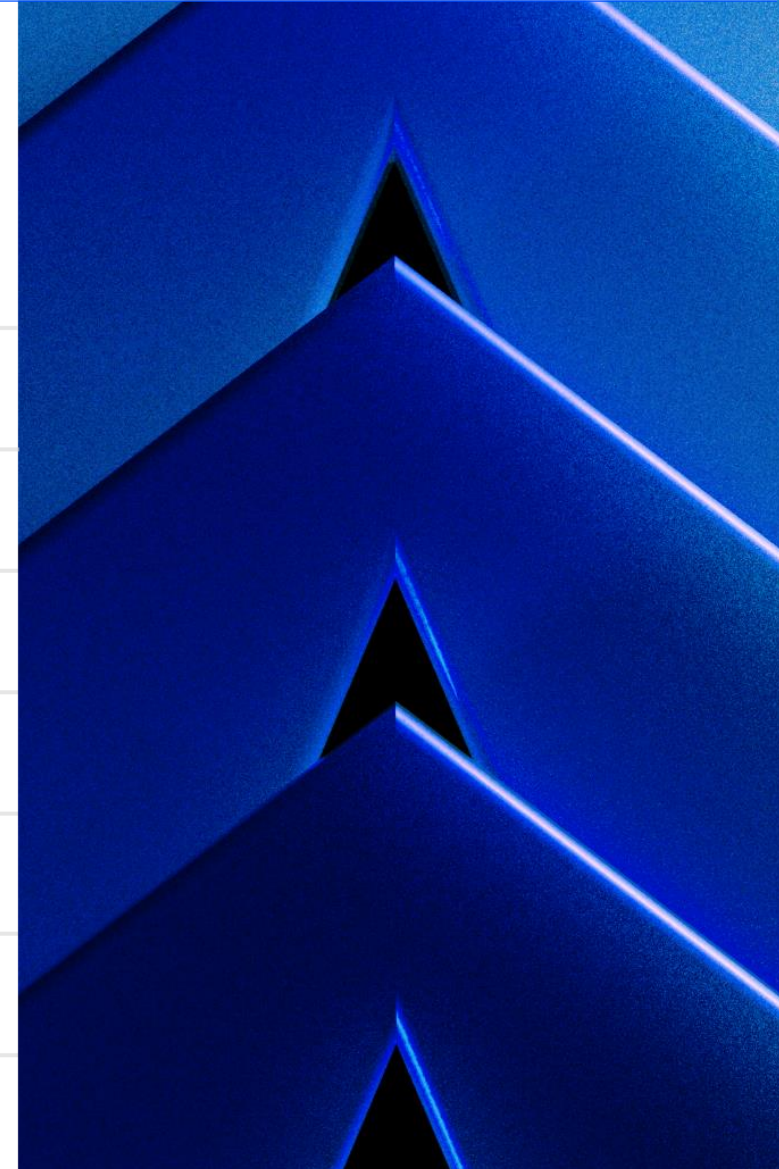


# OUR SERVICES



## OUR INTEGRATED APPROACH TO ENGINEERING DESIGN INCLUDES:

- \* ADVANCED CAD AND ENGINEERING DESIGN
- \* SIMULATION AND ENGINEERING ANALYSIS
- \* PROCESS AND PLANT SIMULATION
- \* BIM AND DIGITAL TWIN SERVICES
- \* INDUSTRIAL AND PRODUCT DESIGN SERVICES
- \* FABRICATION AND PRODUCTION ASSISTANT
- \* ELECTRICAL AND AUTOMATION SERVICES



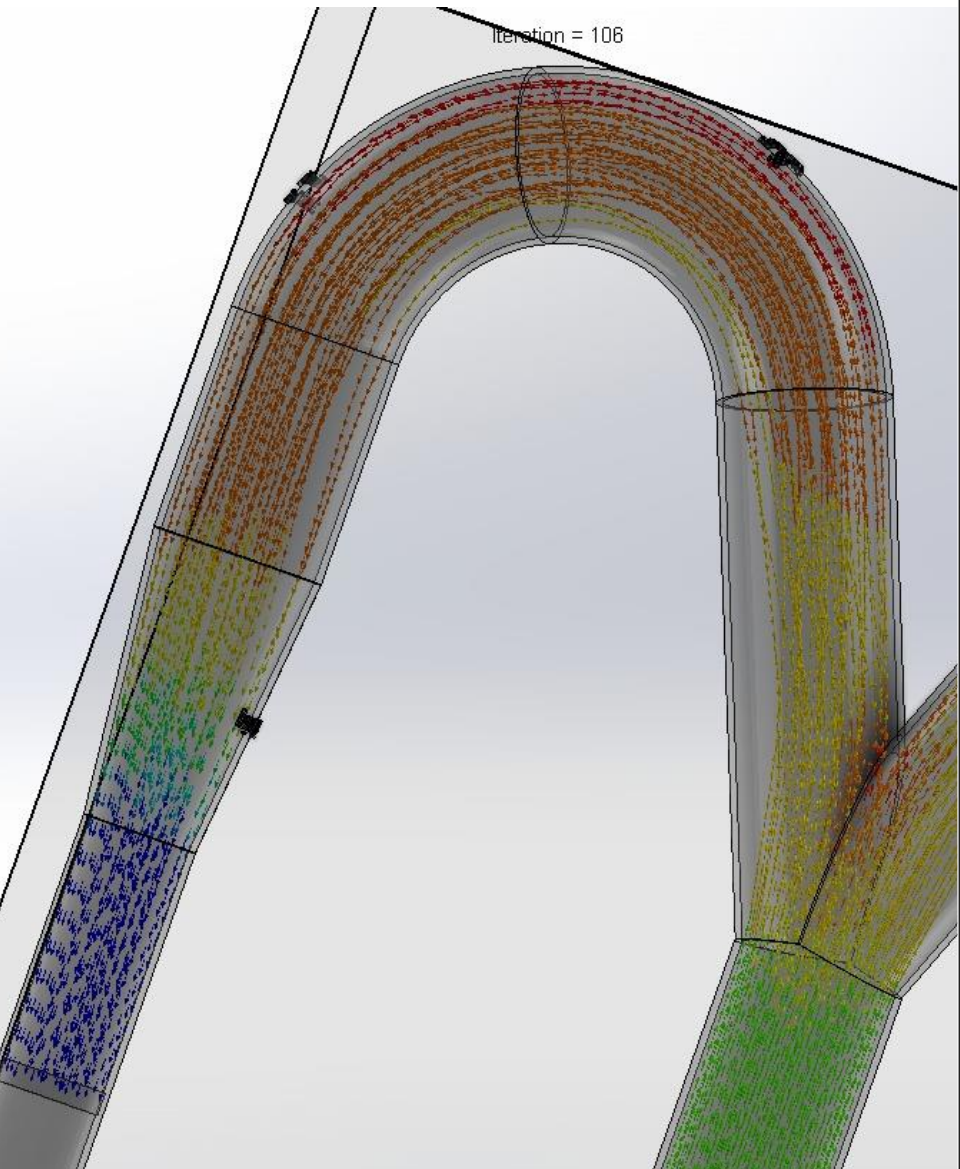


## \* ADVANCED CAD AND ENGINEERING DESIGN

Using CAD softwares we develop detailed, innovative designs for mechanical and industrial products, machinery and complex systems.

- > Machine design and developments
- > 3D Mechanical design
- > 2D Drafting for fabrication, installation and assemblies
- > Piping design and drafting
- > CAD conversion and migration
- > Reverse engineering
- > Tooling and fixture development
- > HVAC Design and engineering





## \* SIMULATION AND ENGINEERING ANALYSIS

By leveraging CAE tools, we conduct robust simulations to optimize product performance and reliability.

- > Finite element analysis (FEA)
- > Computational fluid dynamics (CFD)
- > Concept engineering (CE) stage, also called pre-FEED (Front End Engineering Design) KETHEC develops and provides project definition, process flow diagrams and design criteria at a high level study phase supported by client input, site conditions, documentation and schematics; the outcome of this CE is a broad project description report including an initial project schedule and an order-of-magnitude Capital Expenditure (CapEx) and Operating Expenditure (OpEx).
- > Basic engineering (BE) or FEED is the stage at which KETHEC develops the basis of detailed design and engineering of a project and includes equipment specifications, general arrangements, a preliminary schedule and a CapEx estimate typically at an accuracy of +/- 15-30%, which is used as the project's Final Investment Decision (FID) by the client.



## \* PROCESS AND PLANT SIMULATION

Kethec provides advanced process and plant simulation services to optimize the workflows and manufacturing processes of our clients. This service is aimed at ensuring maximum efficiency, reducing bottlenecks, and improving overall productivity within industrial operations. Our offerings include:

- > **Digital Twin Integration:** Utilizing cutting-edge simulation tools to create a digital replica of the plant or process, enabling real-time analysis and optimization.
- > **Workflow Optimization:** Identifying inefficiencies in manufacturing processes and recommending streamlined workflows for enhanced throughput.
- > **Predictive Analysis:** Simulating scenarios to predict potential challenges and proactively design solutions for seamless operations.
- > **Custom Solutions for Specific Industries:** Tailoring simulation services to fit the unique requirements of industries such as automotive, aerospace, agriculture, and packaging machinery.
- > **Data-Driven Decision Making:** Leveraging IoT and machine learning to analyze operational data, enhance decision-making, and continuously improve processes.





## \* BIM AND DIGITAL TWIN SERVICES

We bring projects to life with digital twin and bim integration, ensuring seamless design to operation transitions and better life cycle management.

- > MEP BIM services
- > Arquitectural BIM services
- > Structural BIM services
- > 3D modeling and rendering
- > Interdisciplinary Clash coordination



## \* INDUSTRIAL AND PRODUCT DESIGN SERVICES

Creation of aesthetic, functional, and innovative solutions for products, machines, equipment, and systems.

- > Development of conceptual designs.
- > 3D modeling and design based on aesthetics and functionality.
- > Design focused on ergonomics and usability.
- > Optimization and restyling of a product's design
- > CGI services (3D Animation and Photorealistic rendering)





## \* ELECTRICAL AND AUTOMATION SERVICES

We deliver cutting-edge electrical and automation solutions tailored to the needs of modern industries.

- > **3D Electrical Design:** Comprehensive electrical schematics and 3D layouts.
- > **Automation for Industry**
- > **Computer Vision Implementation:** Development and integration of computer vision technologies for quality control, process optimization, and enhanced monitoring in industrial settings.
- > **Machine Learning Solutions:** Application of machine learning algorithms for predictive maintenance, process optimization, and intelligent decision-making in automated systems.
- > **Internet of Things (IoT) for Industry**

INNOVATION STARTS WITH A  
CONVERSATION. LET'S EXPLORE  
HOW KETHEC CAN TURN YOUR  
BOLDEST IDEAS INTO  
ENGINEERED REALITIES.

READY TO BEGIN?

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