

MIXTRUDE ENGINEERING

[ABOUT]

WHO ARE WE

XTrude Engineering is a company that utilizes digital and lean manufacturing to provide industrial products and solutions. XTrude aims to revolutionize local and region manufacturing by supplying state-of-the-art engineered parts & solutions, while achieving the highest quality standards, and providing a wide variety of materials to ensure the best product for the application.

XTrude Engineering started out to solve a core problem of importing spare parts, and the lack of high-quality manufacturing regionally, which exposes the market to supply chain risks, the region is going through a major shift from high dependency on import to local dependence, and we aim to thrive and achieve the best manufacturing solutions to our region.





DIGITAL MANUFACTURING IS THE FUTURE.
...AND THE FUTURE IS HERE.

[SERVICES]

PRODUCT DEVELOPMENT

XTrude Engineering provides a full service for any product from development of it from an idea up to mass production of the product.

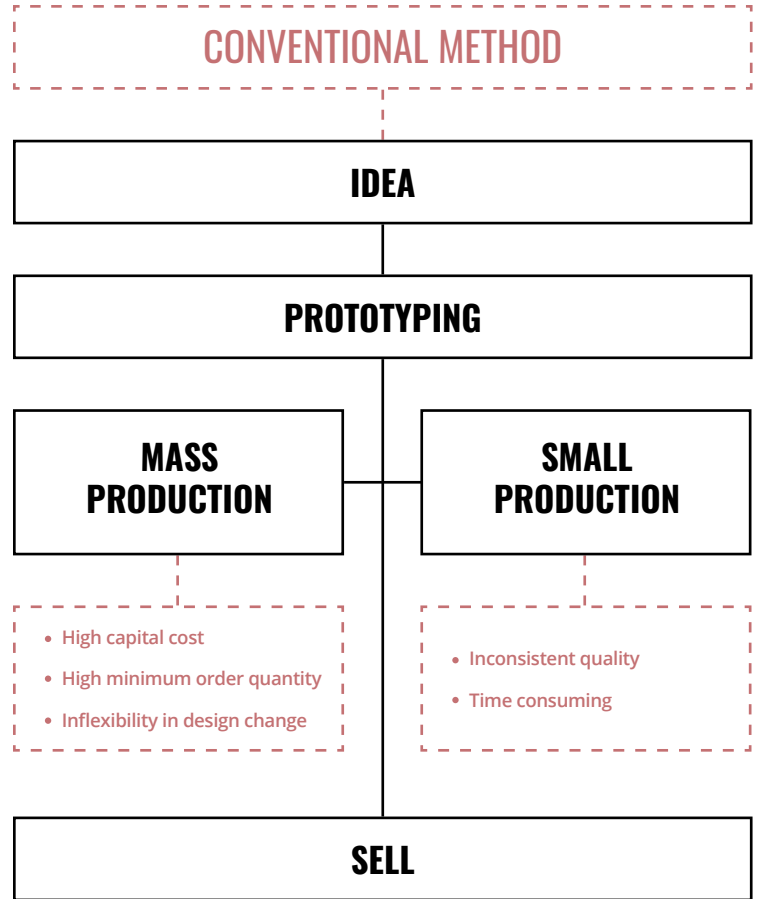
Clients can come with an idea, and within days they will have a working prototype, and within weeks, a product ready to sell in the market.

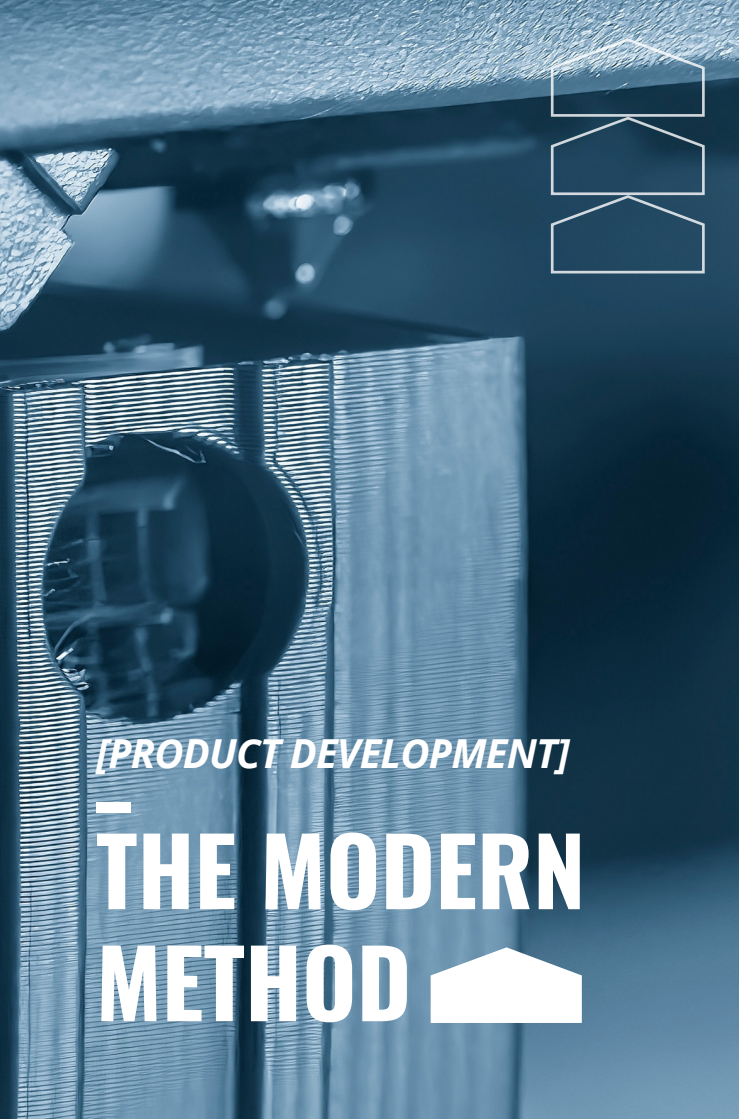
We utilize lean and digital manufacturing to reduce the cost of production of the client and provide them with flexibility in order quantity, design change, material, and other parameters.



[PRODUCT DEVELOPMENT]

THE CONVENTIONAL METHOD



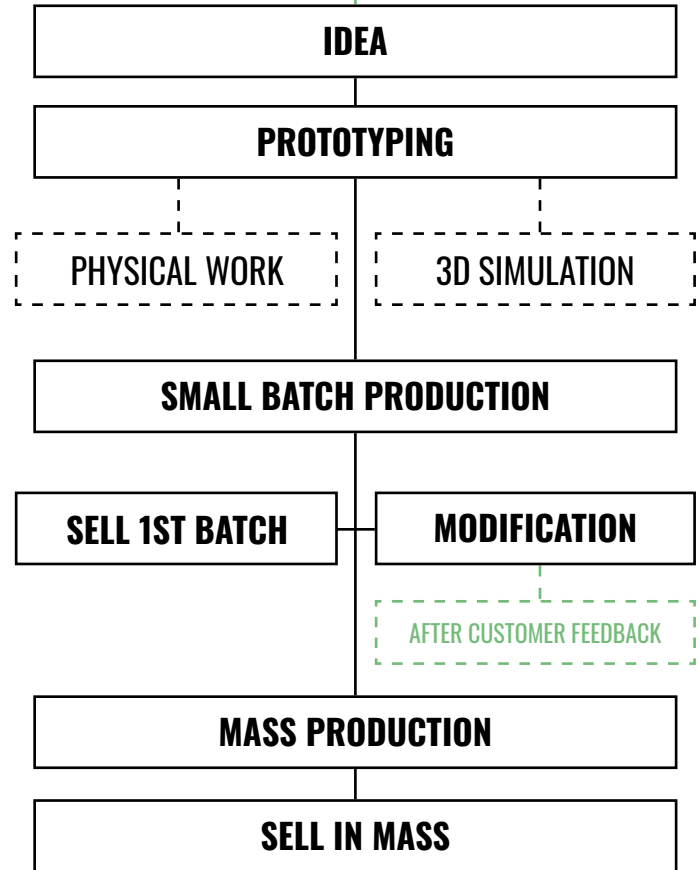


[PRODUCT DEVELOPMENT]

THE MODERN METHOD



THE MODERN METHOD





[SERVICES]

DIGITIZATION OF INVENTORY

Digitization of inventory is a new concept of where we transform a part from being physical in large quantities in a warehouse, to a digital file stored in your file. The digital parts are manufactured on demand based on the request of the client; thus it removes the need of large storage spaces, ordering in bulk quantities, long lead times of importing, and depreciation of parts with time in storage.

PROBLEM VS SOLUTION

PROBLEM

PHYSICAL STORAGE

- Parts are ordered in large quantities
- High initial cost
- Parts depreciate with time if not consumed
- Increased cost of storage
- Long lead time of ordering new batches due to imports

SOLUTION

DIGITAL INVENTORY

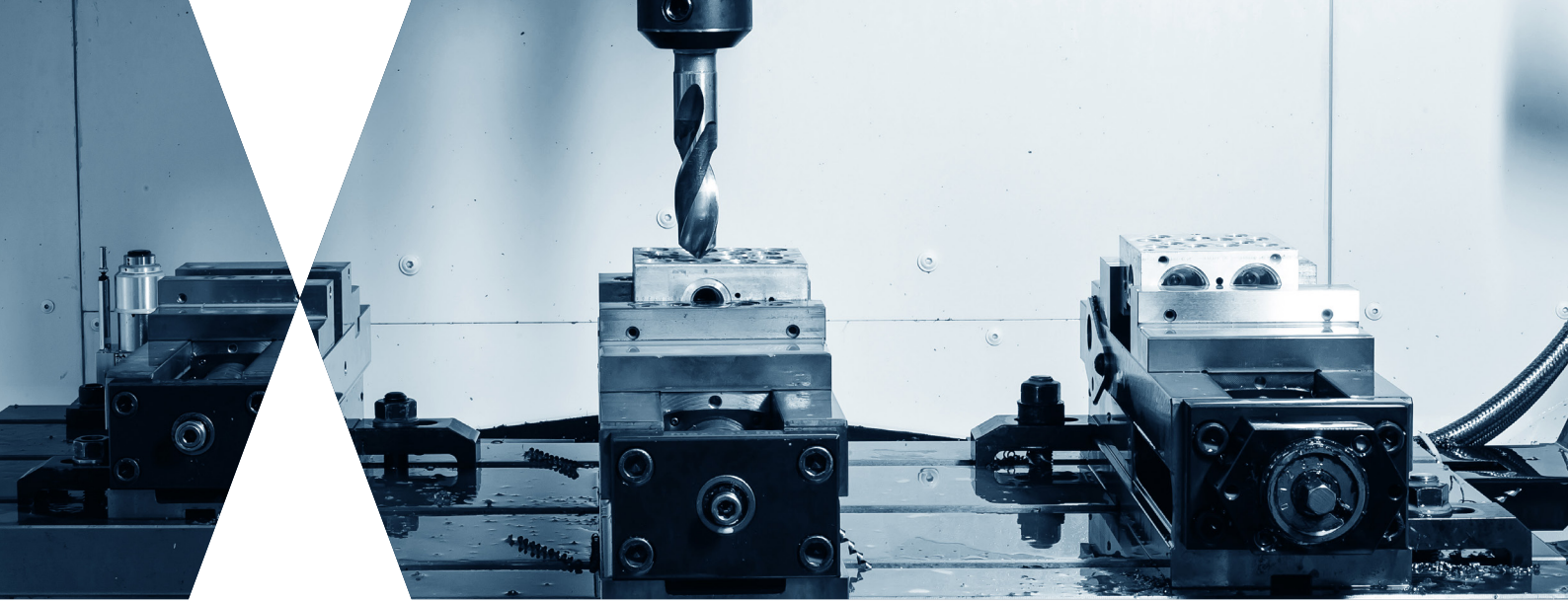
- Parts produced by demand
- Quantities can be upon requirement
- Almost no storage cost
- Shorter lead time
- No depreciation due to direct utilization of part



[SERVICES]

REVERSE ENGINEERING

Reverse engineering is a process of taking any physical part and turning it into a digital model and modified if needed to enhance performance and then manufacturing a new product.



[SERVICES]

RAPID PROTOTYPING

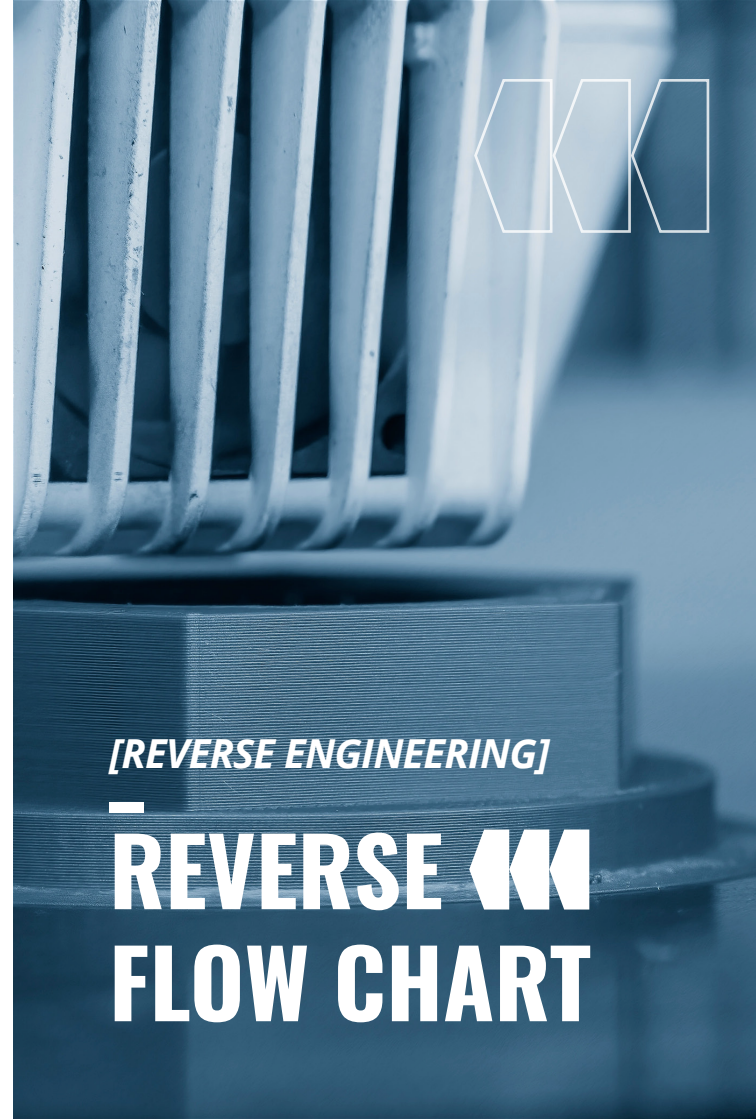
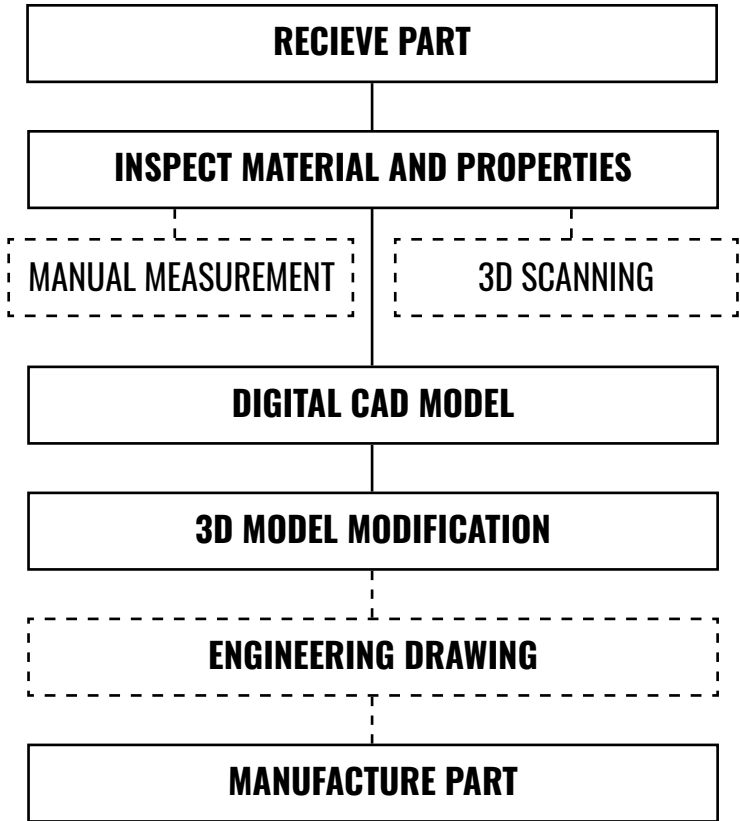
Manufacturing accurate and near perfect prototypes with wide range of textures sizes and materials of products and industrial parts with a short lead time and competitive cost.



[REVERSE ENGINEERING]

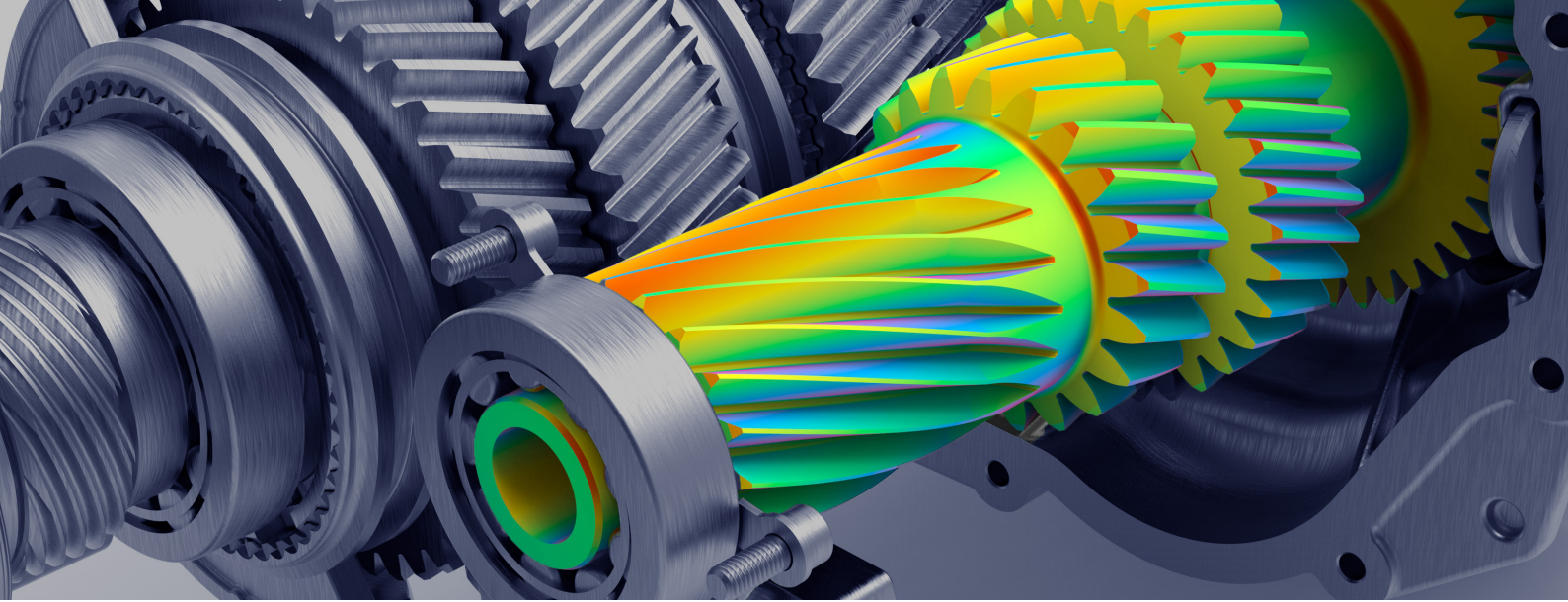
3D SCANNING

Digitizing your part into a 3D model,
with up to 0.02mm accuracy.



[REVERSE ENGINEERING]

REVERSE FLOW CHART



[SERVICES]

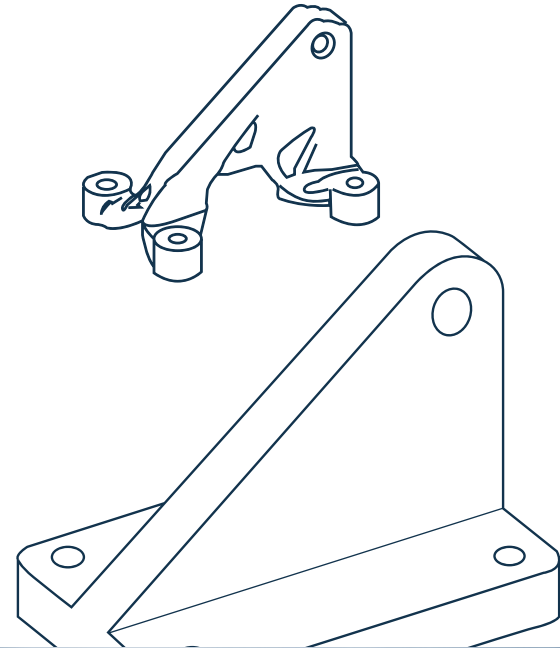
FINITE ELEMENT ANALYSIS

Functional Engineering parts are inspected using finite element analysis and stress tests, this helps us ensure the functionality and durability of the parts and assists us to identify weak links and reinforce or edit the part accordingly and chose the right material for the application.

[SERVICES]

— GENERATIVE DESIGNING

As part of our engineering CAD services, we can provide generative design solution by using AI to specify stress load distribution and add material in the areas that require material, thus leading to lighter weight part without sacrificing load strength



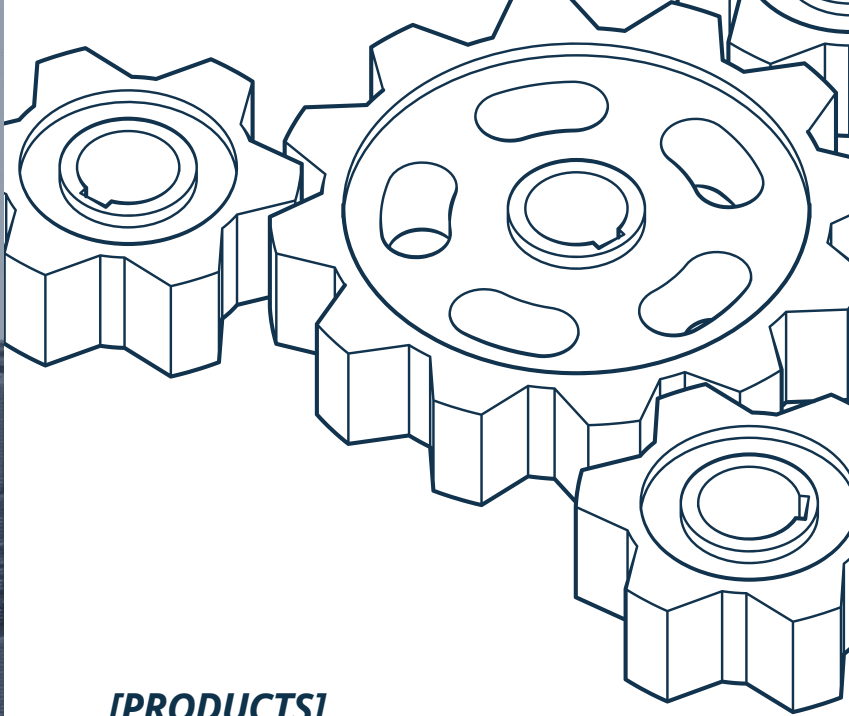
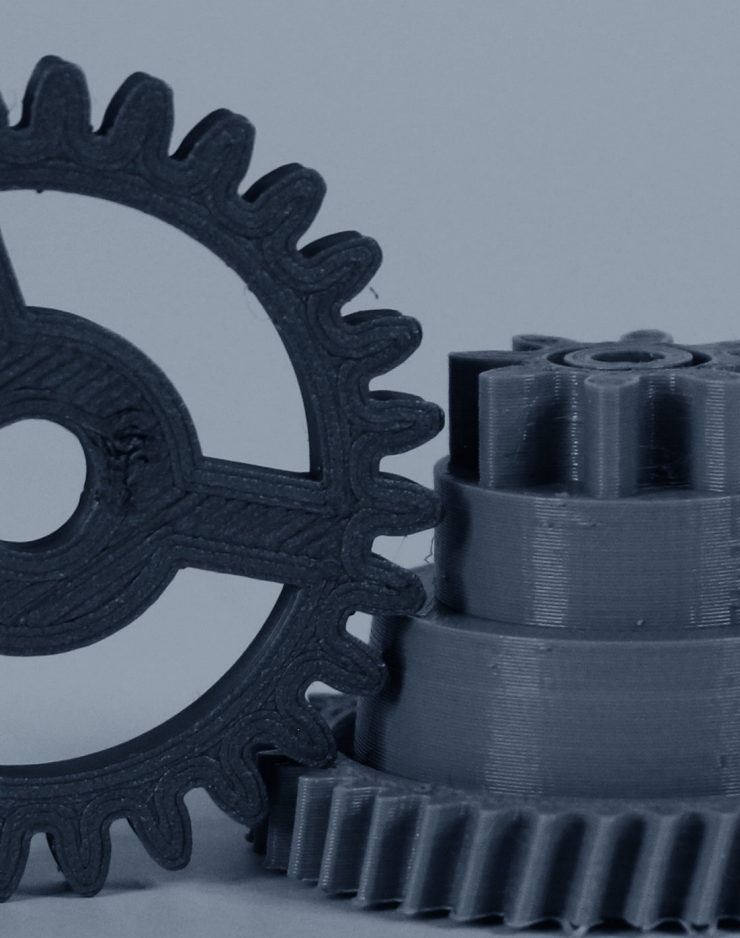


[PRODUCTS]

CUSTOM TOOLING

Develop new tools that enhances the efficiency, safety & repeatability of your production facility.

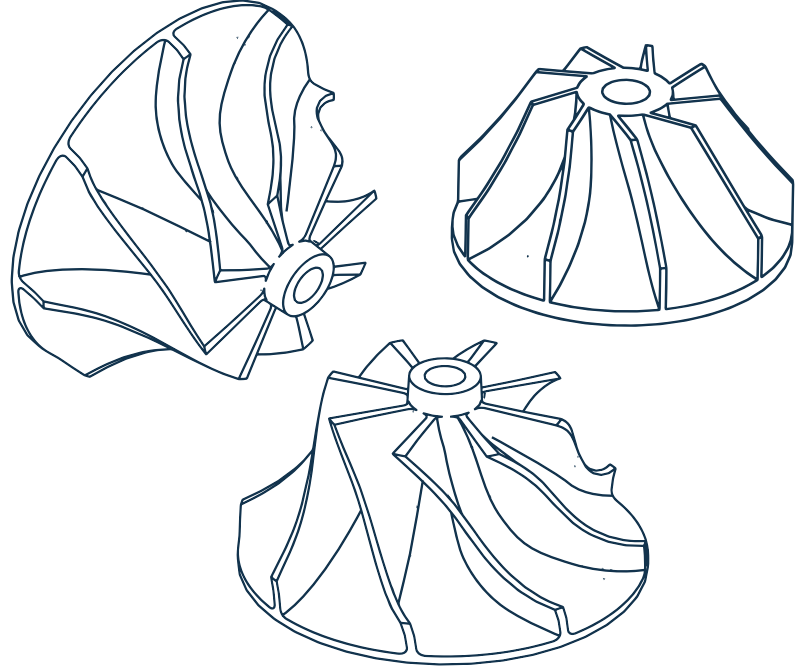
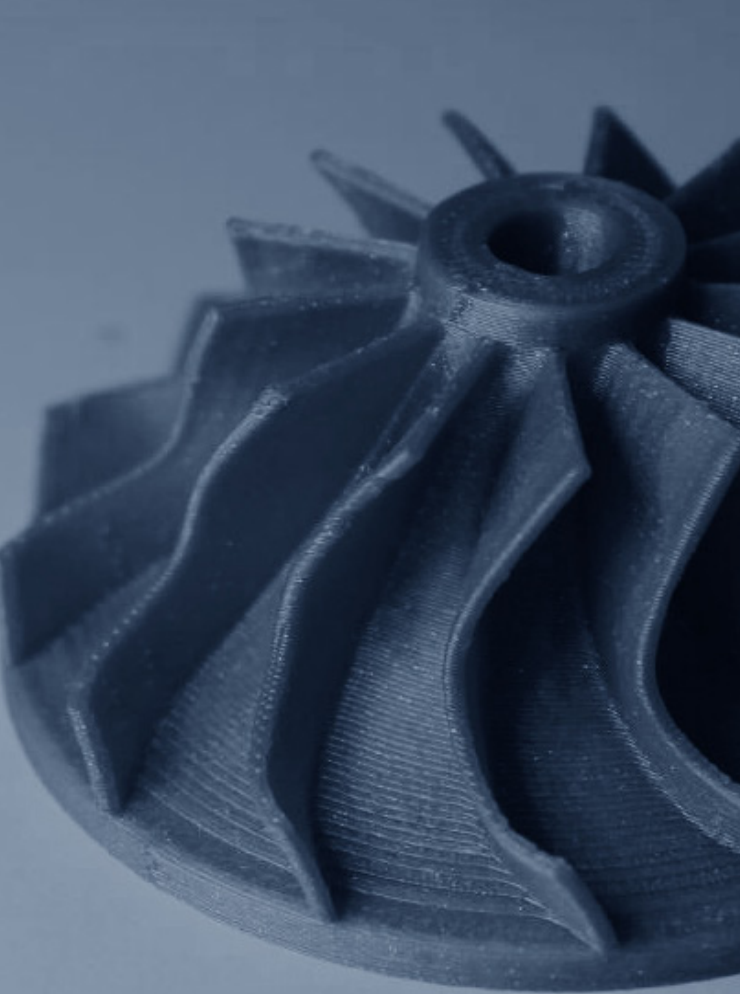




[PRODUCTS]

GEARS

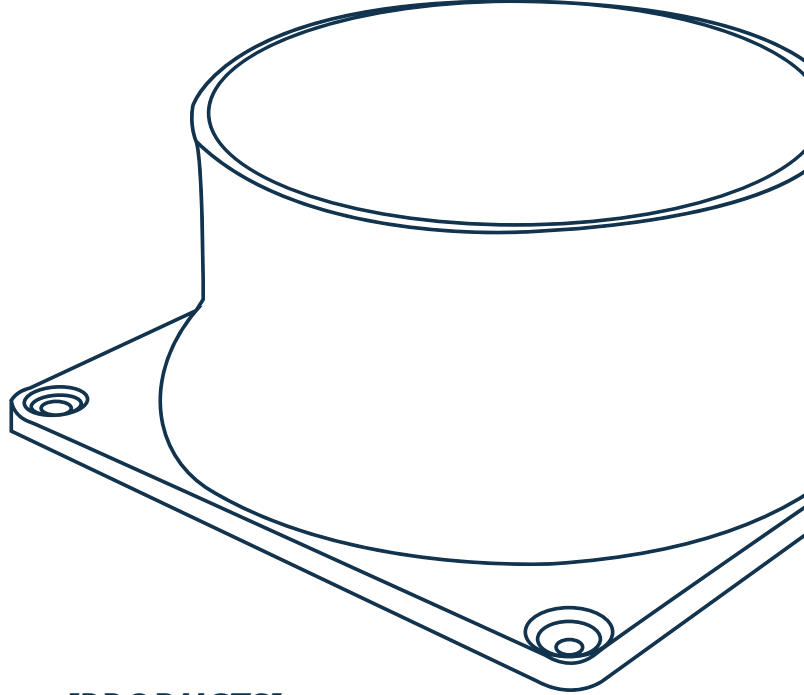
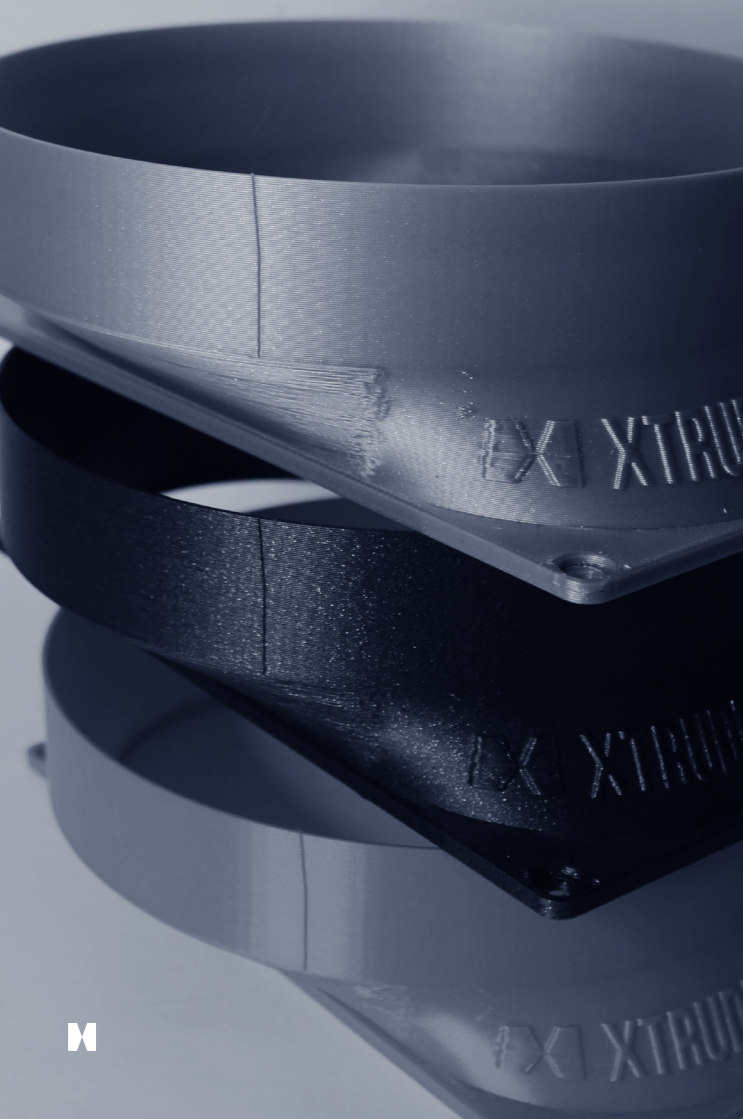
Design, reverse engineer and manufacture custom composite Gears.



[PRODUCTS]

— IMPELLERS

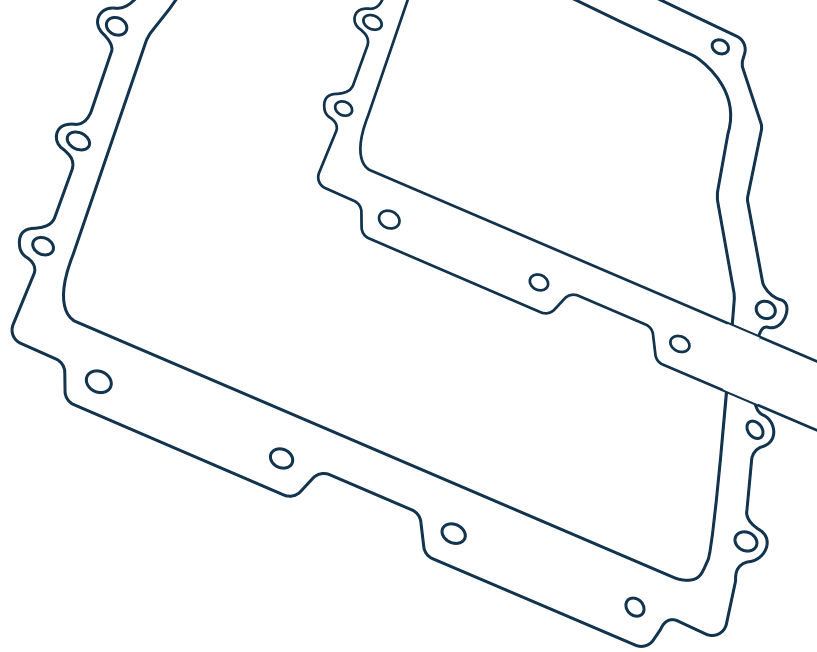
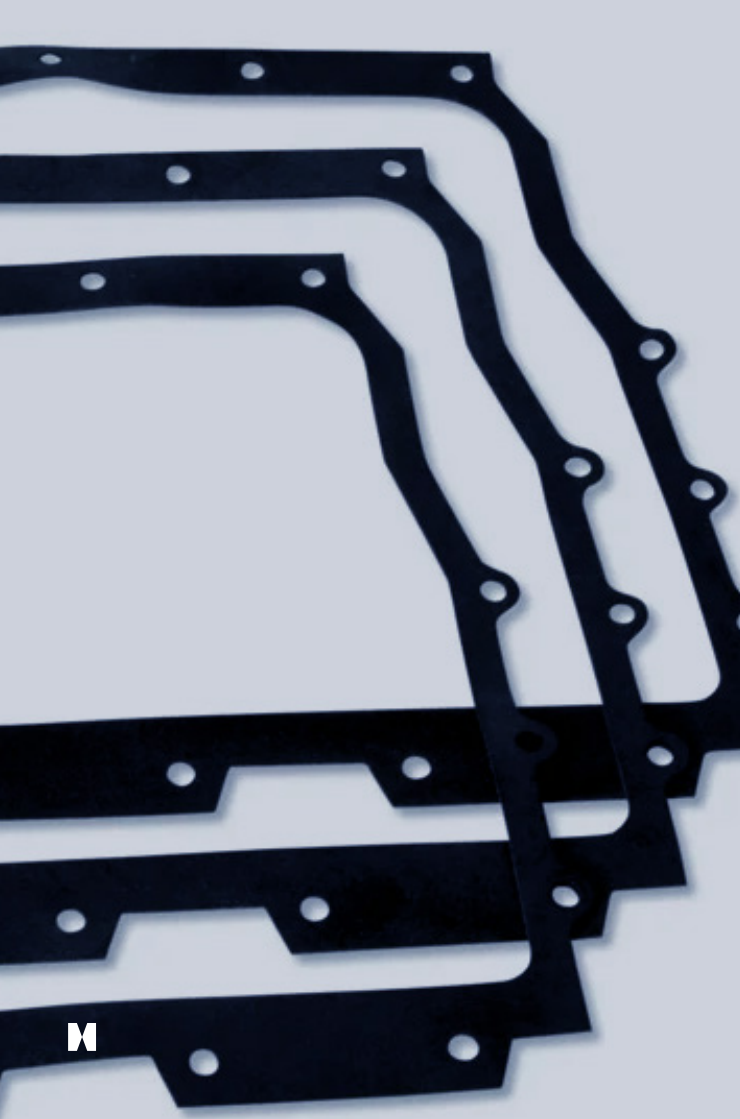
Design, reverse engineer and manufacture custom polymer Impellers.



[PRODUCTS]

— SHROUDS

Design, reverse engineer and
manufacture custom Shrouds & Nozzles.



[PRODUCTS]

RUBBER GASKETS

Design, reverse engineer and
manufacture custom Rubber Gaskets.

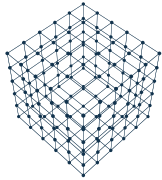


[PRODUCTS]

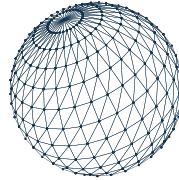
— ELECTRONIC CASINGS

Design, reverse engineer and
manufacture custom Electronic Casings.

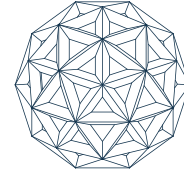
VALUE PROPOSITION



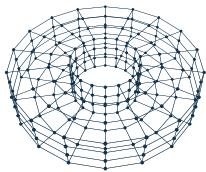
Up to 70% reduced cost of manufacturing and shipping methods



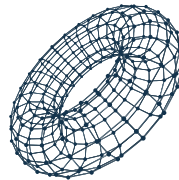
1-7 days reduced lead time on manufacturing products and parts



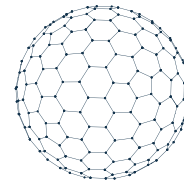
High flexibility in design and prototyping changes



Capable of manufacturing complex shapes



High dimensional accuracy (up to 0.03mm accuracy)



Wide range of new generation products and materials

[WHO WE WORKED WITH]

SELECTED CLIENTS



GE VERNOVA



دار الضالحي للهندسة
مشاريع ومهندسون
GULF HOUSE ENGINEERING
Architects & Engineers

يوسف بن أحمد كانو
Yusuf Bin Ahmed Kanoo



قطاع الرعاية الصحية-سقالة
Cigalah Healthcare Sector

CALO



AMAKiN.

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