VX Inc.

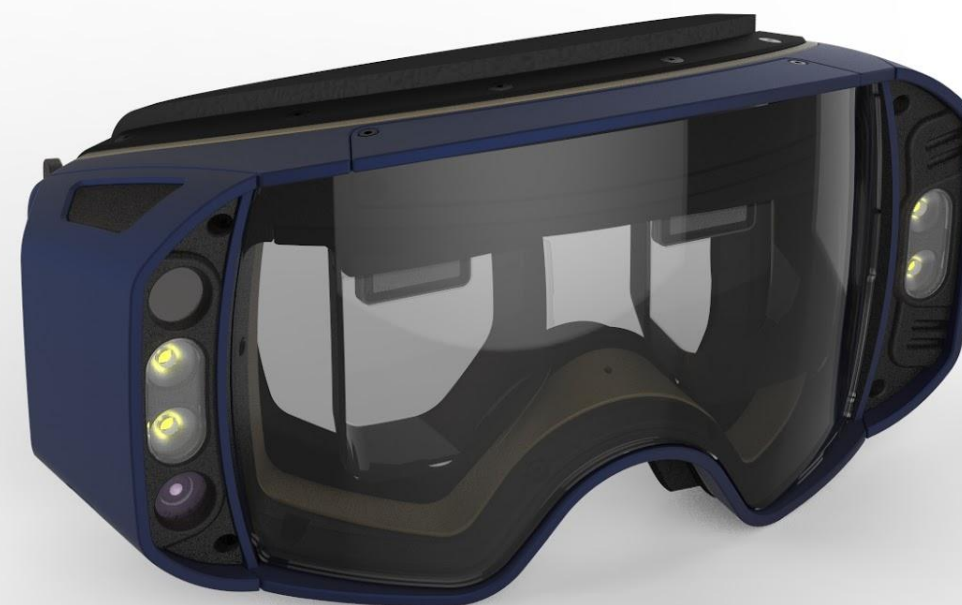## 2021
VX Inc. Company Overview

AUGMENTED REALITY FOR CONSUMERS

VX Inc.

6.8 MPH

18.2 Miles Traveled

BPM 162

AUGMENTED
REALITY
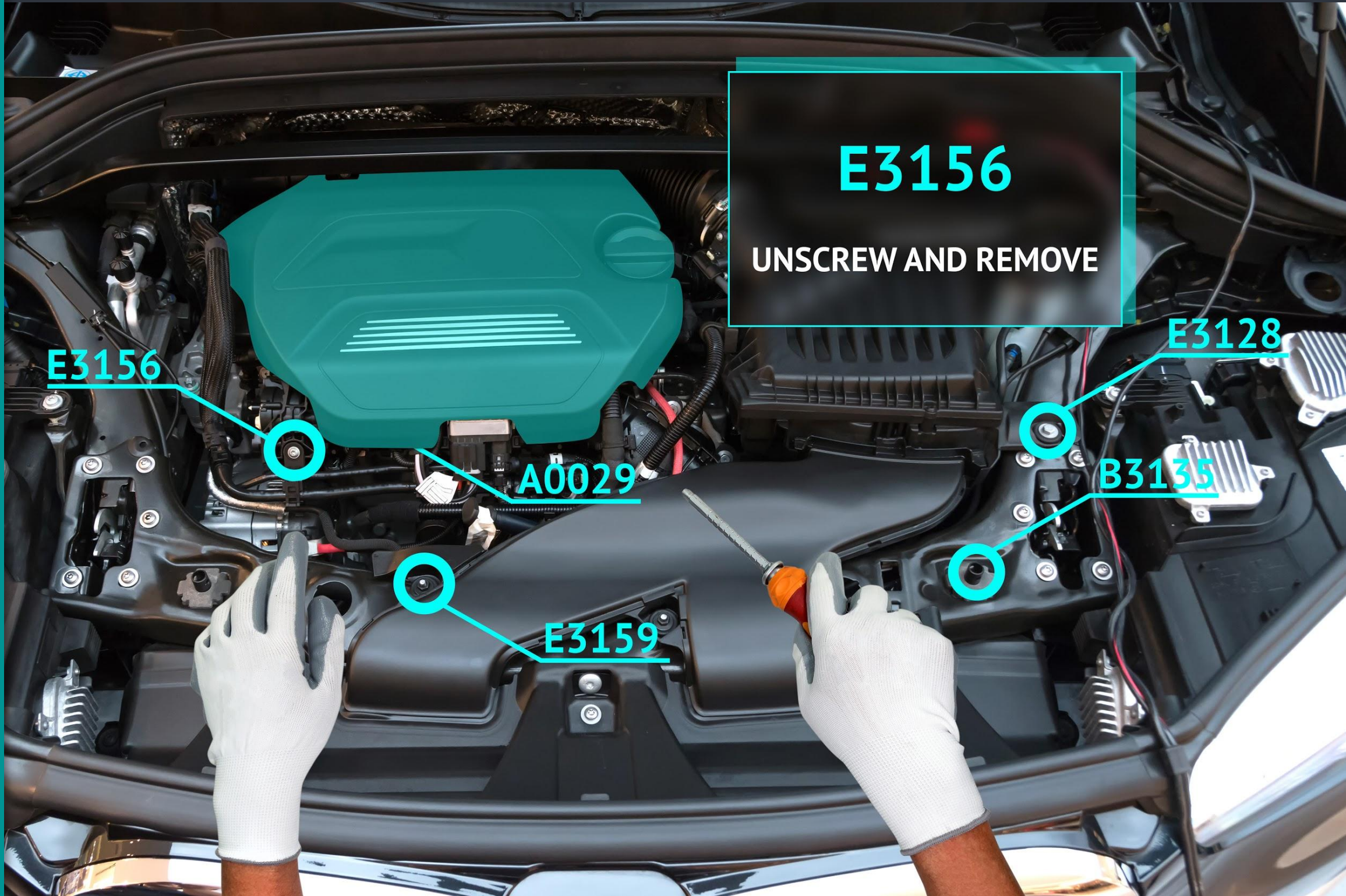FOR
DEFENSE

VX Inc.

POSITION
P467 L801 354_D647
G277 D98 526

N

16 Rounds Remain

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Overview

VX Inc. is a B2B AR hardware developer that was founded to solve key problems in augmented reality (AR) through the creation of technology products and services. We are focused on three key areas:

Design Services - Our engineers are development experts with a passion for good design, electromechanics, optomechanics, and advanced manufacturing.VX provides fast paced, high quality design services focused on AR hardware.

VX Hardware - We support customers with our own AR products and reference designs that reduce risk and lead time. Integrating a system that has been tested and validated gets your product off the ground sooner.

VX research - VX is registered with SAM/GSA as subject matter experts, ready to support SBIR, CRADA, and Federal R&D efforts as well as supporting customers conducting market research.

VX Hardware

Design Services

VX Research
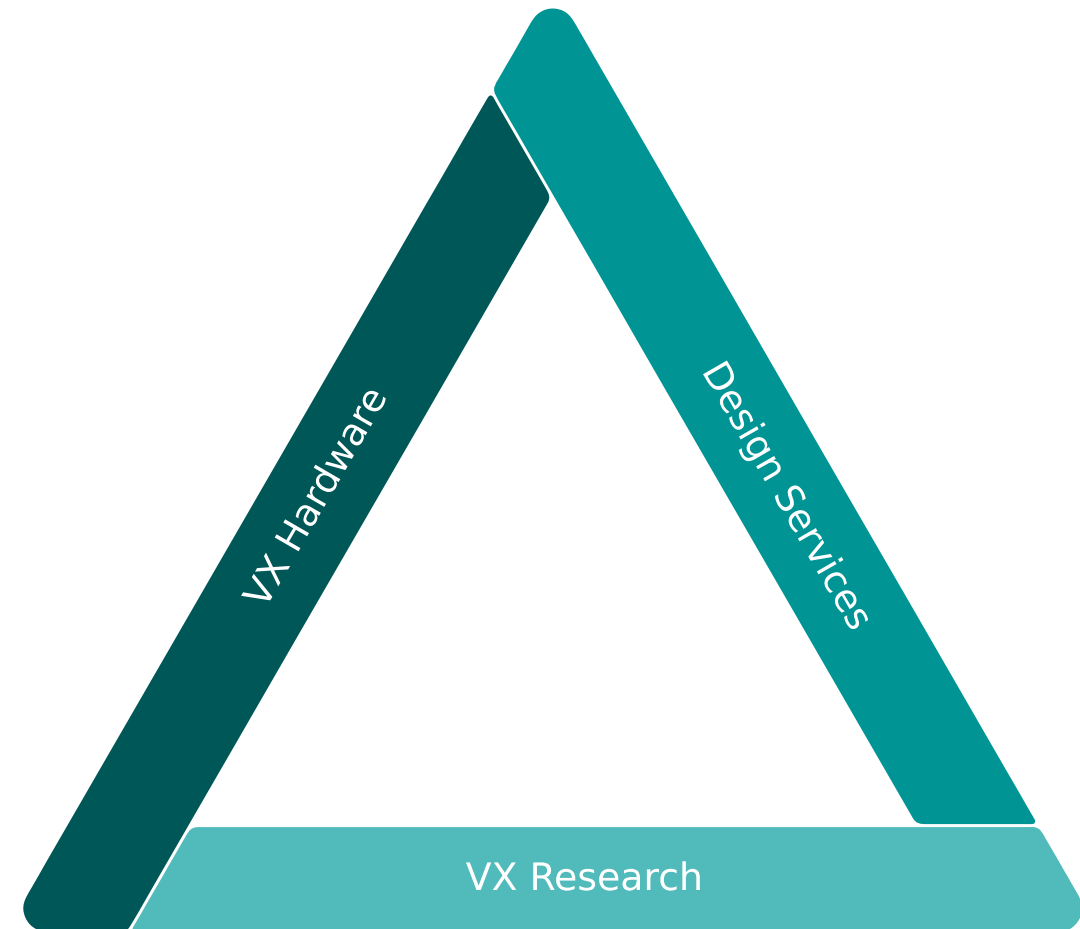
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Past Work

1:13 PM

APPLICATIONS

- 4D Viewer
- Camera
- Gallery
- Remote Expert
- Thermal
- Web Browser
- Editor

VX Inc.

VX Inc.

VX Inc.

VX Inc. was founded to develop key AR hardware technology.

We are a full-service system integrator of custom AR technology.

DESIGN SERVICES

VX has accumulated broad expertise in product development and have a growing technology portfolio that allows us to develop products fast.

Mechanical Design

- Design for Manufacturing
- Complex Part Design
- Waterproofing and Ruggedization
- Optomechanical Design
- Thermal Management

Electrical Design

- System Architecture
- Schematic Creation
- PCB Layout
- Firmware & BSP

Industrial Design

- Creative Direction
- Industrial Design
- Concept Rendering
- Product Management
- Human Factors

IN-HOUSE EQUIPMENT

VX has a wide range of equipment for turn-key prototyping and short-run production.

Fabrication

- CNC Machining
- 3D Printing
- Laser Cutting
- PCB SMT
- Molding
- Finishing and Coatings
- Honing, Lapping, Finishing

Assembly

- Precision Tools
- Dust Controlled Workspace
- PCB Rework
- Marking, Labeling, Etching
- PCB Programing, Testing

Inspection

- Lens Verification
- Basic Metrology
- 4k Digital Microscope
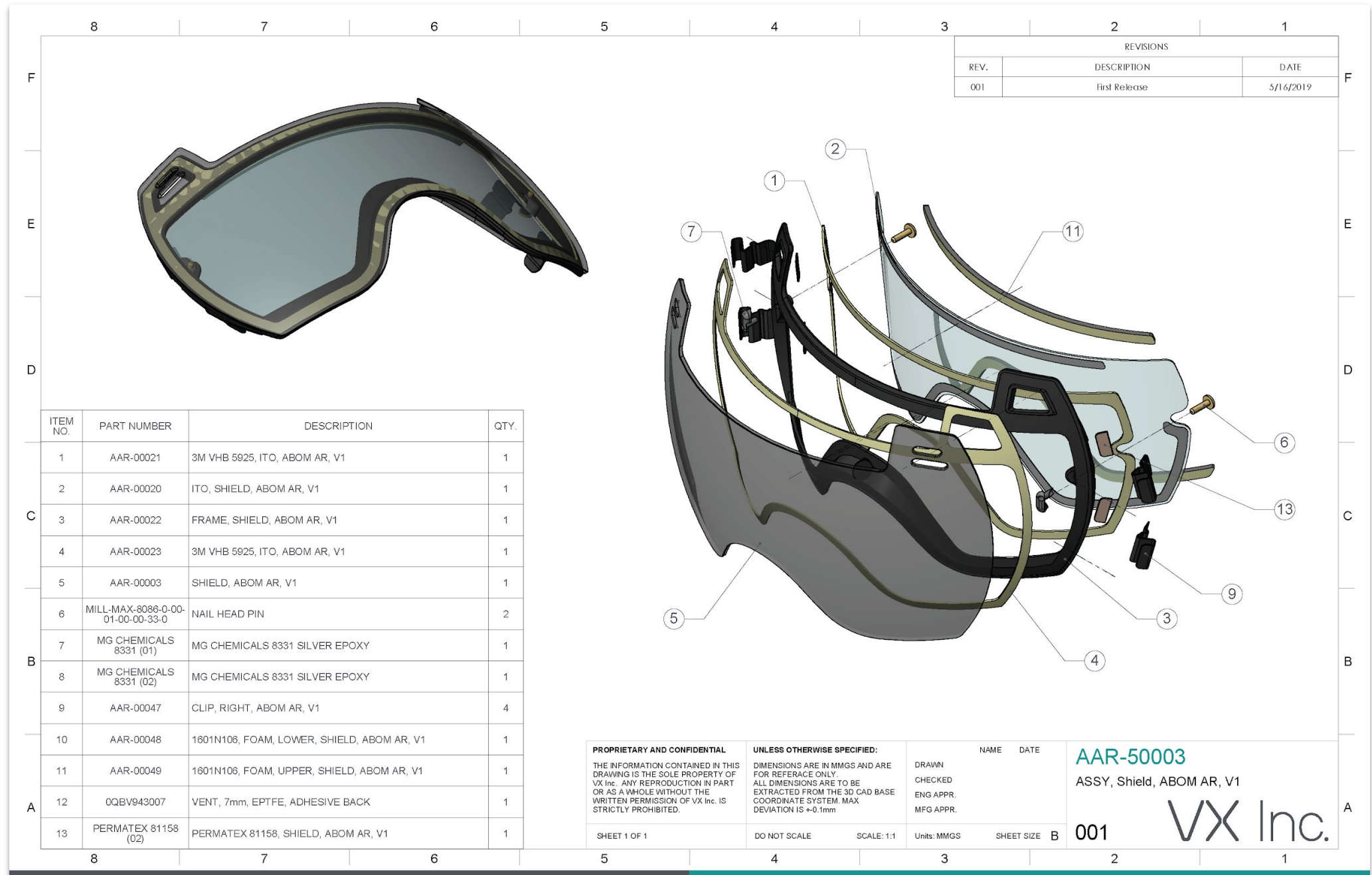- Strain Testing
- Spherical Inspection

MECHANICAL ENGINEERING

Our engineers are development experts with a passion for good design, electromechanics, optomechanics and advanced manufacturing.

We will work with your stakeholders to understand your product needs.
Our Features-First, Top-Down, Outside-In, design methodology allows for a fast and straightforward path to market.

Top-Down allows us to have a defined scope and allows us to work fast. Outside-in allows you to have visibility of what the product will look like from the beginning.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	AAR-00021	3M VHB 5925, ITO, ABOM AR, V1	1
2	AAR-00020	ITO, SHIELD, ABOM AR, V1	1
3	AAR-00022	FRAME, SHIELD, ABOM AR, V1	1
4	AAR-00023	3M VHB 5925, ITO, ABOM AR, V1	1
5	AAR-00003	SHIELD, ABOM AR, V1	1
6	MILL-MAX-8086-0-00-01-00-00-33-0	NAIL HEAD PIN	2
7	MG CHEMICALS 8331 (01)	MG CHEMICALS 8331 SILVER EPOXY	1
8	MG CHEMICALS 8331 (02)	MG CHEMICALS 8331 SILVER EPOXY	1
9	AAR-00047	CLIP, RIGHT, ABOM AR, V1	4
10	AAR-00048	1601N106, FOAM, LOWER, SHIELD, ABOM AR, V1	1
11	AAR-00049	1601N106, FOAM, UPPER, SHIELD, ABOM AR, V1	1
12	0QBV943007	VENT, 7mm, EPTFE, ADHESIVE BACK	1
13	PERMATEX 81158 (02)	PERMATEX 81158, SHIELD, ABOM AR, V1	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MMGS AND ARE FOR REFERACE ONLY.
ALL DIMENSIONS ARE TO BE EXTRACTED FROM THE 3D CAD BASE COORDINATE SYSTEM. MAX DEVIATION IS +-0.1mm

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		

AAR-50003

ASSY, Shield, ABOM AR, V1

SHEET 1 OF 1   DO NOT SCALE   SCALE: 1:1   Units: MMGS   SHEET SIZE B   001

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INDUSTRIAL DESIGN

A good industrial design is key to make any produced product come to life. Good design can define a product, maximize profit, and boost sales. VX offers a full range of design, product planning, visualization, and human factors services.
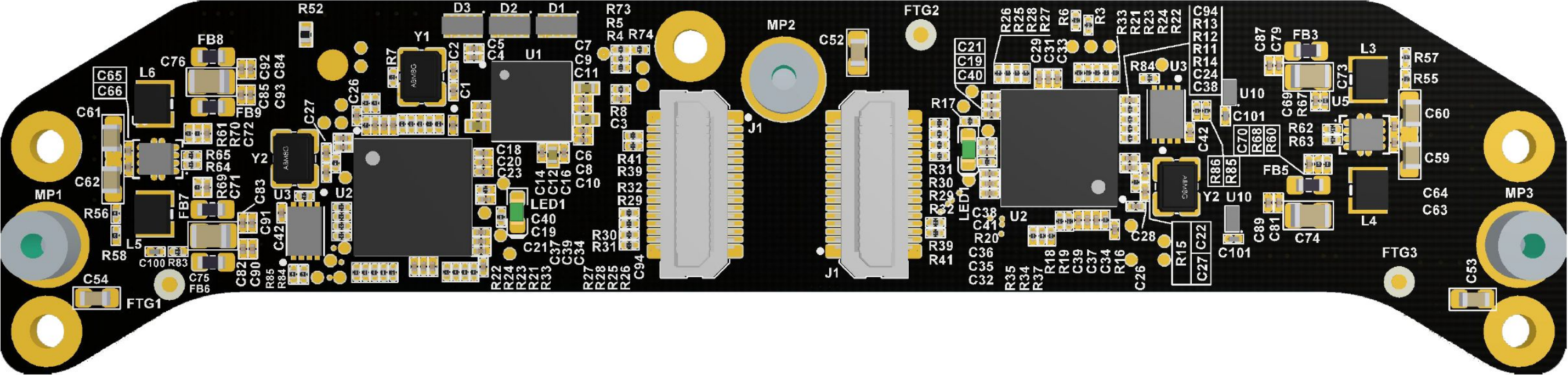
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ELECTRICAL ENGINEERING

We provide easy integration of technology into AR products. Careful choice of components and system design allow for the best miniaturization.

We use a proven eCAD to mCAD process allowing our engineers to create a design of interrelated parts and features in real-time collaboration.
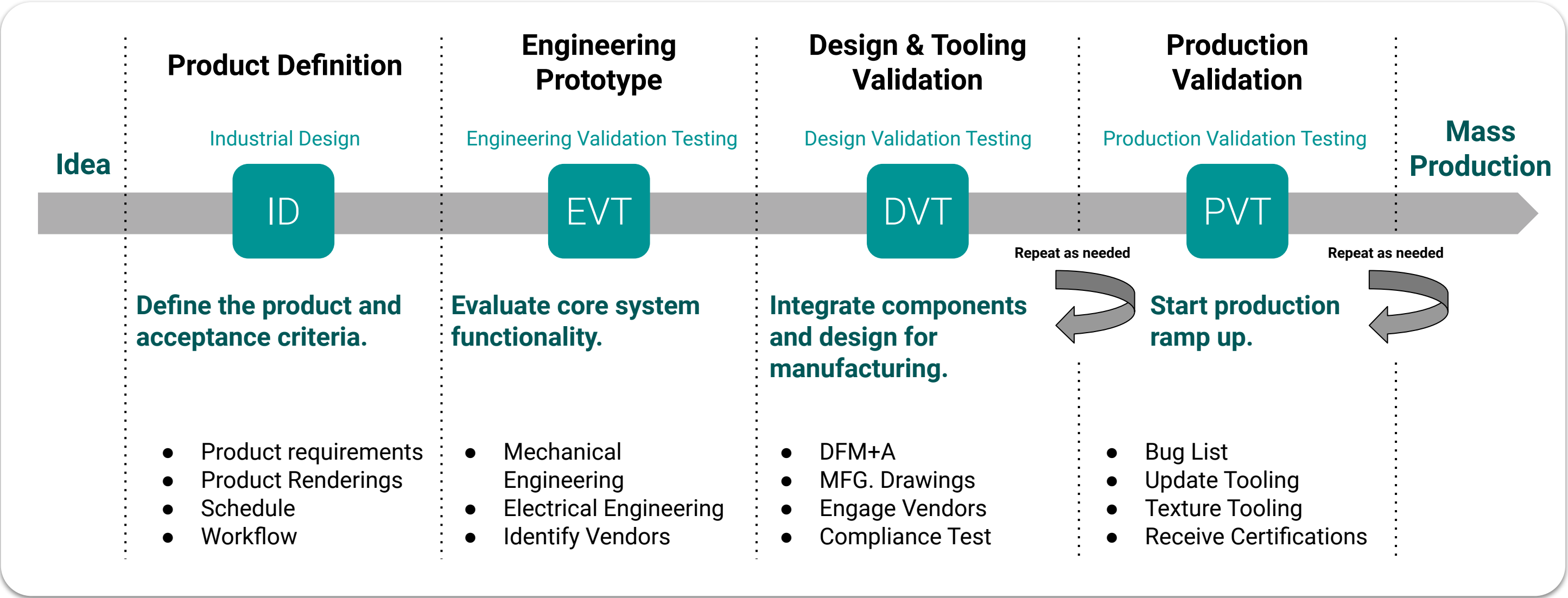
We excel at making complicated projects seem simple - to bring the product to market faster.

Concept To Production

An idea to mass production in 4 steps. This process is proven to reduce development risk, time, and expense. It systematically delivers results.

Product Definition	**Engineering Prototype**	**Design & Tooling Validation**	**Production Validation**
Industrial Design	Engineering Validation Testing	Design Validation Testing	Production Validation Testing

Idea

Mass Production

ID	EVT	DVT	PVT

Repeat as needed   Repeat as needed

Define the product and acceptance criteria.	**Evaluate core system functionality.**	**Integrate components and design for manufacturing.**	**Start production ramp up.**
• Product requirements • Product Renderings • Schedule • Workflow	• Mechanical Engineering • Electrical Engineering • Identify Vendors	• DFM+A • MFG. Drawings • Engage Vendors • Compliance Test	• Bug List • Update Tooling • Texture Tooling • Receive Certifications

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OUR DESIGN PROCESS

Features First

Features-First means we start with a list of features requested by the project stakeholders. This list is then refined into "required features", and "nice to have features". These features will be added to a Product Requirements Document (PRD). Acceptance criteria and metrics are assigned for validation.

Top Down

Top-Down means we work in a hierarchical fashion to define a form-factor. We start by placing known components in the system and arrange them based on the requirement and use. We will design around the most important components and work our way down to the least defining features.

Outside In

Outside-In means parts are designed starting from the outer form factor and worked inward. The shape of the form factor is divided up into sub-assemblies, parts, and lastly the part features. **When finished, we will have created a design of interrelated parts and features that work towards the product as a whole.**

VX Inc.

VX hardware

Hardware Products

From complete systems to individual components, VX Hardware has you covered. VX Hardware can be used as is, or customized to fit your specific application.

Development Kits

Our development kits allow our customers to test their products and software outside in tough conditions, rain or shine.

Reference Designs

VX Reference Designs take the risk out of development and implementation. Use our design to power your product, reducing lead time and developments costs.

03

01

02

AR Displays

VX offers optical modules that are compact and offer a variety of features that will empower your product to be more. Custom optics built on VX technology are also available.

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VX Modular Augmented Reality System (MARS)

The VX modular augmented reality system (MARS) is a complete AR reference design created to take the risk out of headset development.

The MARS BlueShift is a finished headset dev-kit with all of the MARS features integrated into a rugged, outdoor-ready package. This dev-kit is meant for field testing in demanding environments.

The MARS reference design includes all the electronic design files, PCBA's, and cables needed to be integrated into existing designs or power a new headset design.
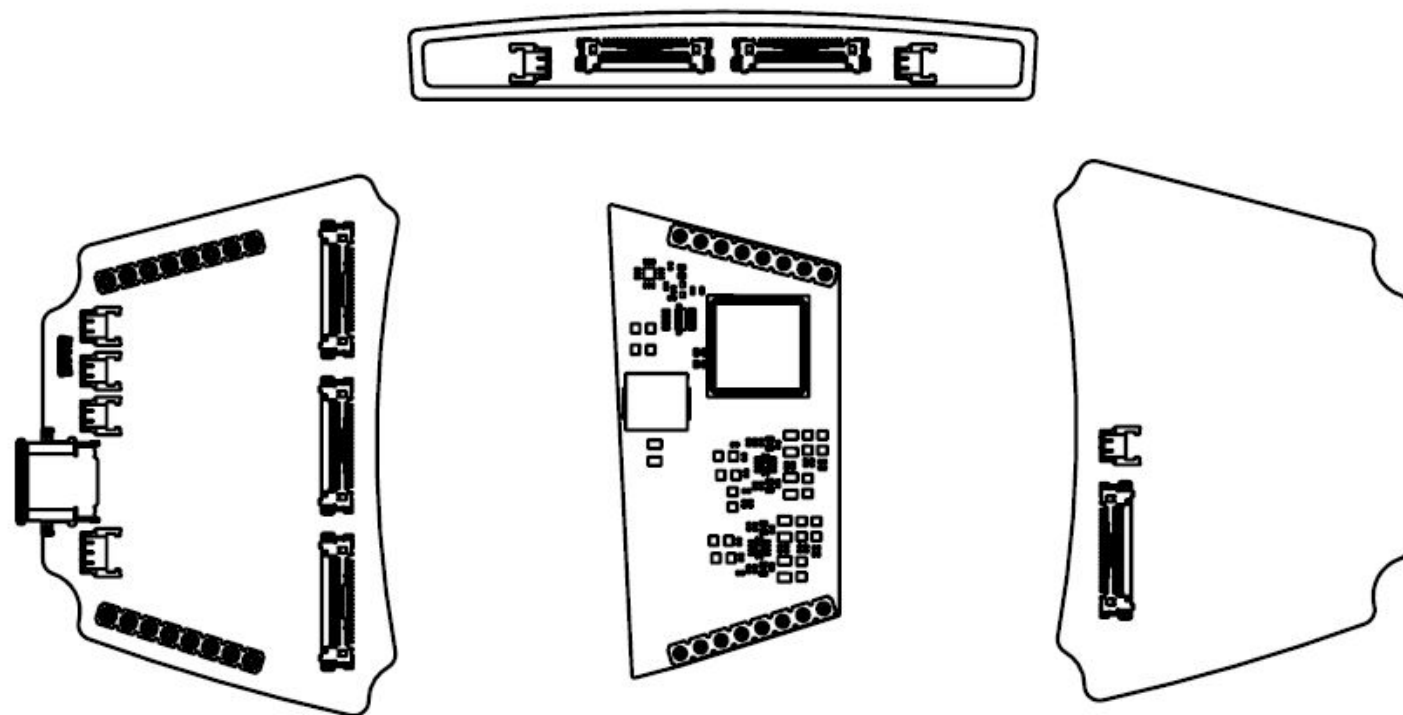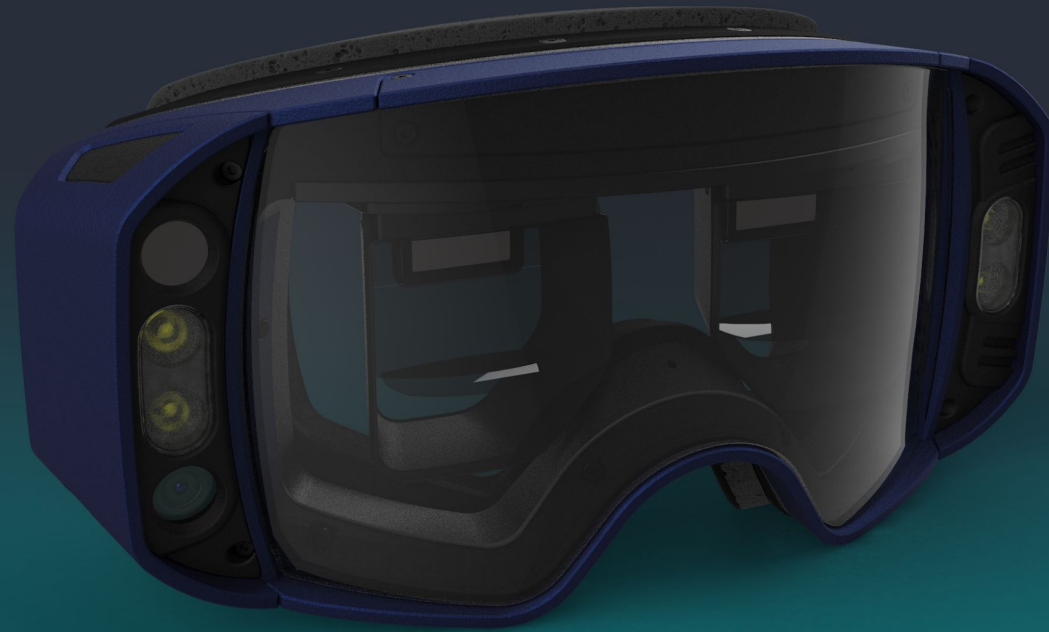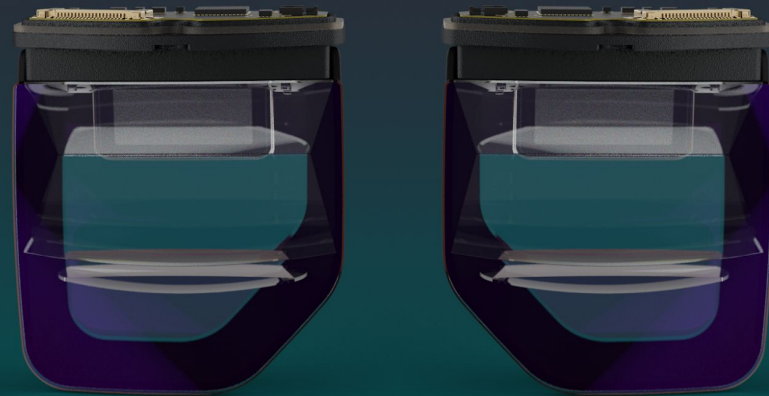
Compact Near Eye Display (CNED)

The CNED is a see-through display that is designed for Augmented Reality, Extended Reality, and Mixed Reality head mounted displays (HMD) applications.

Designed to look like and to fit within regular glasses, the CNED is cosmetically desirable and compact in size, perfect for industrial or consumer needs. Our hardware will bring your AR device closer to total immersion

MARS Evaluation Kit (EV1)

The EV1 evaluation kit combines all the components of the MARS onto a single board and is built to support VX customers in their product development.

The EV1 fully breaks out the MARS by utilizing USB 3.1 Type-C + DP-ALT mode with auto enumerate plug-n-play, and supports Windows 10, Android, and Linux. Including an onboard MCU for data processing and IDC headers to expand and test new sensors, the EV1 is a great tool to aid development.
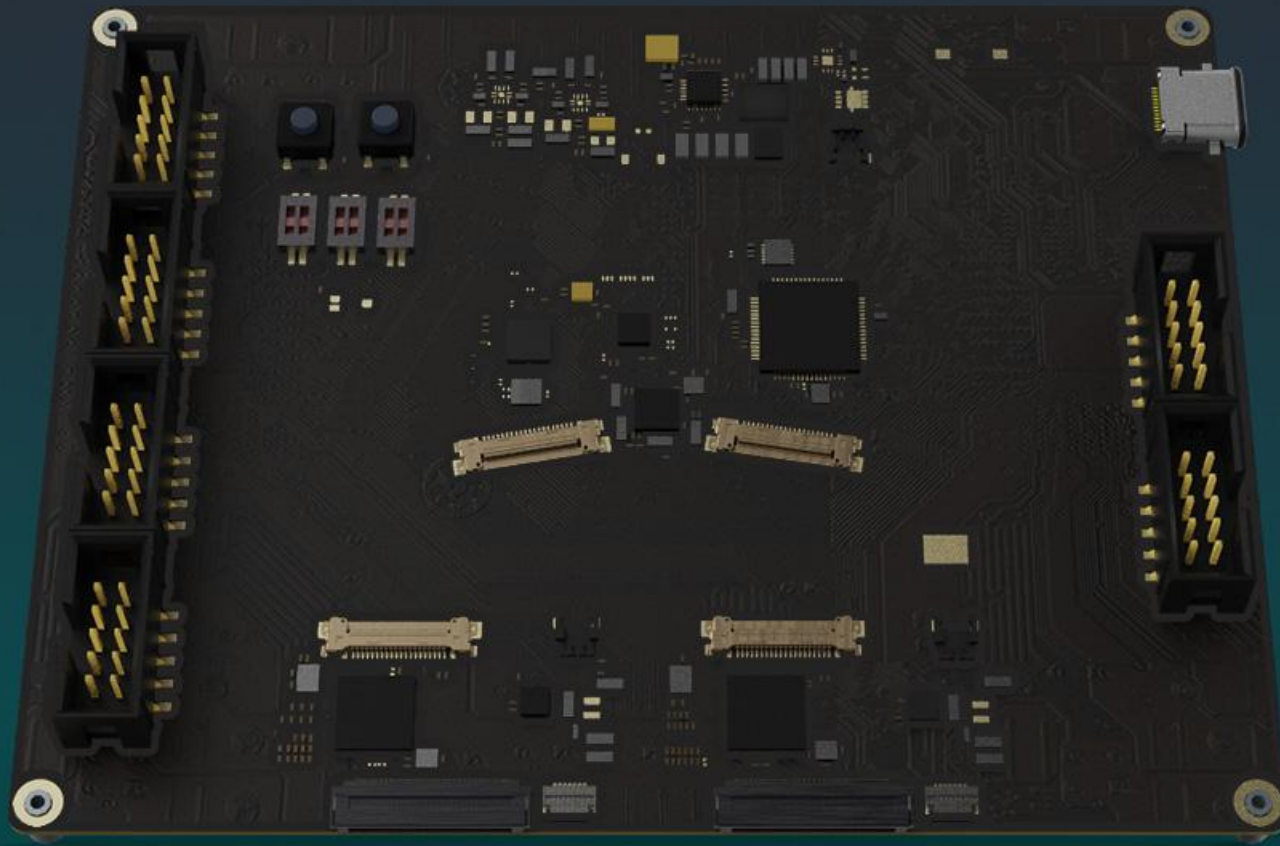
VX was founded by some of the top experts in augmented reality.

CEO, Founder
Kyle Cherry

Kyle Cherry is a design and development expert with a passion for good products. He has 11 years of augmented reality experience and has designed 27 AR devices. Leading large budget projects, Kyle's in-depth knowledge of design for manufacturing allows for quick completion of products. Kyle and his teams have shipped many influential electromechanical and optomechanical consumer products. His career is focused on holistic product design in the consumer and enterprise electronics industry.

Before founding VX Inc, Kyle held positions in several startups, and design and development firms. His past work can be found on GeekWire, Engadget, Gizmodo, and in the Wall Street Journal. Kyle also served as an engineering education adviser for more than a decade. His experience covers many diverse areas.

www.linkedin.com/in/kylecherry

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VP, Founder
Kyle Florek

Kyle Florek is a Mechanical Design Engineer focused on augmented reality head mounted displays and product development. He excels in fabrication, customer service, prototyping, design for manufacturing, and assembly. He is also experienced in complex part design for metal and plastic tooling. Kyle has 6 years of augmented reality experience. His diverse background in mobile, wearable technology, and high voltage electric powertrains brings a cross-disciplinary approach to hardware development.

Before graduating with his Bachelors in Mechanical Engineering from Washington State University, Kyle led and participated in six volunteer trips for humanitarian, poverty, and disaster relief.

PUREWATER

DAQRI

atheer labs

WASHINGTON STATE UNIVERSITY

BOM

1066 Labs

in www.linkedin.com/in/kyle-florek

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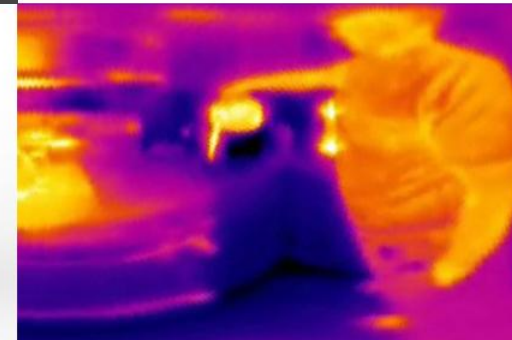
Augmented Reality
Design
Displays
Integration

Contact us at info@vx-inc.com