



Customer Experience (CX) is the battlefield for brands. Differentiated CX is core to improving and retaining customer loyalty. Mindtree, with its deep digital expertise, has been at the forefront of helping enterprises deliver enhanced and contextual experiences to their end clients.

User Experience is undergoing a tectonic shift in terms of how customers perceive and interact with the digital world. The shift in perception augmented by Al and interactive technologies like Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR) is driving multisensory and multimodal user experiences. This unleashes new possibilities to transform interactions throughout the customer experience & industry 4.0 touchpoints.

Overview

In Manufacturing Industry, Immersive technologies especially augmented reality and Mixed reality is poised to solve a remarkable number of problems and that is why "Smart Manufacturing" sector is forecasted to grow at 15% CAGR, reaching \$150 Billion by 2022. Immersive experience powered by artificial intelligence is fundamentally changing the way consumers perceive and interact with the physical and digital world. From facility management to training talent on niche skills, from quality assurance to real time remote expert assistance Immersive technologies are creating endless new possibilities across verticals in in the space of Manufacturing.

Where can one use this?



Prototype



Sales & Marketing



Customer Experience



Training



Service & Operations

How are we positioned?

With physical and virtual worlds converging, Mindtree is well-positioned to help clients, rapidly unlock value from their immersive technology business use cases

Technology Essentials / _

True immersive experience is an amalgamation of various technologies like AR VR MR, Computer Vision and Artificial Intelligence (AI).

Category	Tools/Activities		
	Blender or Maya	Unity 3D	Gimp, Photoshop
3D Content Authoring	3D Modeling UV Unwraping Shading & Texturing Skinning, rigging Animation Unity shading & texturing Lighting, Baking, Rendering		
Game Engine / IDE	Xcode(IOS), SceneKit Android Studio, PyCharm - Python Dev Visual Studio, Sceneform Unity Editor and Unity Engine		
	Compositing VFX Interactions Integrating AI Voice Integration Sound Integration Cloud Integration		
Augmented Reality SDK	Vuforia Vuforia Expert capture - AR Instructions Vuforia Studio - Author and publish AR Apps Vuforia Engine - Advanced computer vision, calibrated performance and cross platform Vuforia Chalk - Remote ARCore - Android AR Kit - iOS Hololens Full feature AR App Development Integrating SDK's Platform specific modification Camera Scene Capturing Advanced Scene Processing Display – Rendering Effects Positional and		
Mobile App Development Frameworks	Orientation Tracking Screen flooding Object / Image Tracking Native App Development Frameworks: Android SDK iOS SDK Cross Platform Development Frameworks: Xamarin Ionic / Cordova React Native Flutter Appcelerator		
	UI Design Animations API integrations DB handling Plug-in integration Deployment		
Hardware Technologies	True Depth camera (iOS) Depth sensing camera Gyroscope and accelerometer BLE		
	Using point cloud for environment understanding and face tracking Device Motion Control Integrating with peripheral devices		
Artificial Intelligence (AI) & Computer Vision (CV)	TensorFlow, PyTorch, Keras, TuriCreate, OpenCV, Apple computer vision, Microsoft Vision Vuforia Model Target Generator Natural Language Processing (NLP) Engines - Microsoft (LUIS), Amazon (Lex, Alexa), Google (Dialogflow), RASA, Mindflow, Salesforce Einstein, SAP Leonardo		
	Training of Models Object detection Face shape detection Edge Detection Model Detection Creation of TF Lite Model and Core ML Conversational Interaction		

Possibilities











Prototype

Sales & Marketing

Customer Experience

Training

Services & Operations

Digital Twins

Collaborative Design

Design Review

Digital Catalogues

Augmented Marketing Ads

Shared AR Based Selling Virtual Walkthrough

Product Customization

Augmented User Manuals Simulation Training

Product Training

Expert Coaching

Facility Equipment Training

Safety Product Training

Expert Capture

Remote Expert Assistance

Service Manual Instructions

Augmented Assembly Instructions

Augmented
Quality Assurance

Service Inspection Instructions

Benefits

By implementing the possibilities here are the potential benefits



Low-cost visualization of high cost asset



Brand Differentiation



Efficient Equipment
Maintenance



Quality Assurance



Increase Worker Productivity



Reduce shutdowns and downtimes



Lower Operational Costs



Upskill Workforce





Our Experience







30+ pilots/implementations across industries, delivered at scale



State of the art experience center



Where Possibilities Come Alive

An India-based center of excellence, to develop immersive technology experiences that unleashes new possibilities.

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