

# PATHPARTNER

## ENGINEERING

PRODUCT INNOVATIONS  
OF THE FUTURE



- AUTOMOTIVE • INTELLIGENT DEVICES
  - DIGITAL MEDIA PRODUCTS
- 
- EMBEDDED SYSTEMS
  - ALGORITHMS & OPTIMIZATIONS
  - MACHINE INTELLIGENCE • CLOUD & MOBILITY

## ▼ WE ARE PRODUCT ENGINEERING SPECIALISTS

We help our clients develop, productize, and maintain advanced technology products. With our full stack engineering services, re-usable solution accelerators and unparalleled experience in transforming innovative ideas into full-fledged products, PathPartner provides its clients the advantage of top-of-the-line technologies, superior performance and faster time-to-market.

## ▼ OUR DOMAIN EXPERTISE

### **AUTOMOTIVE**

Infotainment | ADAS | Digital Cockpit | Autonomous Driving

### **CONNECTED CAMERAS**

Action Cameras | Security Cameras | Drone Cameras

### **INTERNET OF THINGS**

Smart Home | Connected Enterprises | Healthcare | IIoT

### **NEXT GEN AUDIO DEVICES**

Speakers | AVRs | Voice Assistants

### **VIDEO CENTRIC SYSTEMS**

Video Surveillance | Video Conferencing | OTT Solutions

### **MEDICAL DEVICES**

Wearables | Connected Devices | Connected Healthcare

### **BROADCAST**

Smart TVs | Video Infrastructure

## ▼ GREAT PRODUCTS NEED TO BE ENGINEERED RIGHT

### WE OFFER FULL STACK ENGINEERING SERVICES

Great on their own but exceptional when combined to develop innovative products.

#### EMBEDDED ENGINEERING

Develop all kinds of products – from constrained, MCU based devices to sophisticated, full service products

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- Hardware design
  - FPGA design services
  - System software
  - Testing & validation
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#### ALGORITHMS & OPTIMIZATIONS

Add key functionalities to your products & optimize them for speed, power, latency and memory

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- Multimedia
  - Computational imaging
  - Radar
  - Lidar
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#### MACHINE INTELLIGENCE

Embed intelligence in your product & differentiate it from the competition

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- Computer vision
  - Deep learning
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#### CLOUD & MOBILITY

Connect your products to the cloud and enable enhanced consumer experience and deeper insights.

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- Cloud engineering
- Application development

## ▼ OUR SUCCESS STORIES

### **MEDICAL DEVICE FOR HIP ARTHROPLASTY**

For an American SME

Reduced costly implant revisions

Hardware design, embedded software,  
cloud backend, applications

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### **AR TECHNOLOGY FOR EYE TRACKING**

For a European major

New technology development

ISP tuning and quality benchmarking  
for eye tracking technology

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### **DRONE SOLUTION**

For an American manufacturer

Performance optimizations

Low latency streaming, Ultra-optimized  
boot time, dynamic sensor calibration

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### **SMART KITCHEN/BATH ACCESSORY**

For a kitchen/bath accessory manufacturer

Software development & certification support

Apple HomeKit integration and remote control enablement

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### **CONNECTED AIR PURIFIER**

For an American clean-air SME

Differentiated product features

Wi-Fi integration, cloud  
connectivity, mobile applications

## CONNECTED CAMERA

For a European diversified OEM

Differentiated product features

Ultra HD video capture, extended battery life, low latency streaming

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## INDOOR POSITIONING SOLUTION

For a European semicon company

Product & Solution enhancements

RTLS Reference Solution – hardware, embedded software, cloud backend, applications

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## DRIVER MONITORING SYSTEM

Ready-to-integrate solution

New feature development

Easy to integrate and available on multiple platforms

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## RADAR – BASED ADAS

For an American major

Performance optimizations

Delivered 20% improvement in object detection latency

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## DIGITAL AUDIO SDK

For an American semiconductor major

Differentiated product features

Real time audio framework, Integration of next-gen Dolby & DTS technologies

## ▼ PRODUCT ACCELERATORS



### IMAGING & VISION

Imaging : High Dynamic Range (HDR), Low Light Enhancement algorithms

2A: Auto Exposure and Auto White Balance algorithms



### AUTOMOTIVE

Smart vision algorithm suite

Radar SDK

Lidar SDK

Driver Monitoring Solution



### CAMERA MODULES

USB Camera modules  
(5MP & 8MP)

3D Stereo MIPI Camera module

Machine Vision USB 3.0  
Camera module

Dashcam

FPD-Link Camera modules



### MULTIMEDIA

HEVC decoder on Xilinx and Altera FPGAs, HEVC Encoder on multicore x86 platform

Catalog components :  
Decoders, encoders,  
post processing, file  
containers, streaming stacks



### REFERENCE SOLUTIONS

Micro-location (RTLS) solution  
based on UWB technology

Voice assist reference SDK

Precision distance measurement  
reference solution



### IOT ACCELERATORS

OTA Update Software Stack

Production Test Suite for IoT

Connectivity Hardware Module

USB 3.0 Driver Stack

## ▼ WHY PATHPARTNER?

### PARTNERSHIPS & ALLIANCES



## ▼ OUR DIFFERENTIATORS & VALUE PROPOSITION

### DEEP EXPERTISE

Over a decade of building turnkey embedded products and solutions with domain expertise across key verticals

### RE-USABLE IPS

A comprehensive portfolio of building blocks for intelligent devices. Already shipping in several devices.

### PARTNERSHIPS

Ecosystem partnerships with semiconductor majors and technology providers. Member of leading alliances

### QUALITY PROCESS

ISO 9001:2015, ISO 27001:2013 certified and compliant processes

# PATHPARTNER

## START A CONVERSATION

[marcom@pathpartnertech.com](mailto:marcom@pathpartnertech.com) | [www.pathpartnertech.com](http://www.pathpartnertech.com)

USA | India | Germany | Japan | China



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