



We make robots behave

VIPER™

3D Visual Perception Solution for Robot Applications



- 3D Sense/Interpret System
- Standart Perception Apps
- Bespoke Perception Apps
- Support & Customization

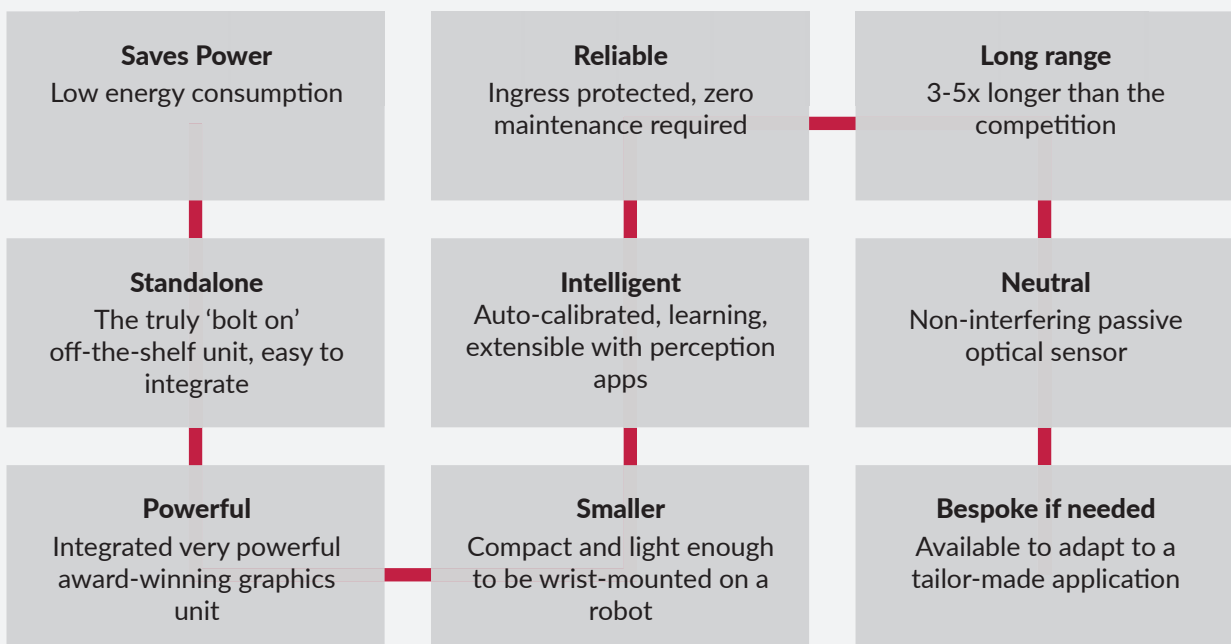
BENEFITS



LACK OF PERCEPTION IS A SANDBAG OF INTELLIGENT AUTOMATION

Industry 4.0 revolution is all about unleashing the power of intelligent machines so they can leave their safety cages and seamlessly blend into our dynamic lives. Unless they are versatile, modular, and reusable in different scenarios, they will not comply with the new standard.

The next generation of robots depend on the ability to acquire, organize, and interpret surrounding visual data in order to stay aware of environmental situation and act both safely and adequately. VIPER System achieves it by continuously measuring environment depth in 3D and performing industry-specific object detection and classification over medium to long range distances. With its integrated powerful computing unit VIPER is designed with the most challenging industrial applications in mind where smart navigation of stationary or mobile robots is key.



FEATURES



Multiple real-time image modalities

2D/3D video, point cloud output, etc.



ROS and OpenCV integration

Supports industry standard APIs



On-board image processing

Uses internal GPU for image processing



Object detection & tracking

Humans, gestures, infrastructure



Unlimited perception capacity

Extensible with perception apps



Compatible with other sensors

Modular image processing pipeline

Depth Camera System

- Depth range from 1m to over 30m
- Diagonal field of view up to 92° (77°x55°)
- Industrial grade Alu with IP65 protection
- Built-in NVIDIA® Jetson™ TX2 Module

Standard Perception Apps

- Human detection and tracking
- Object detection and pose estimation
- Simultaneous localization and mapping
- Extensible with third-party perception apps

VIPER Solution

Bespoke Perception Apps

- Exclusive to a particular customer
- Adapted to a tailor-made application
- Pre-integrated with customer's host system

Customization & Support

- Custom baseline, custom optics, and sensors
- Housing-free assembly for integration
- Flexible support options

VIPER System



Perception Apps



Host System



Intelligent Autonomous Indoor/Outdoor Navigation Capabilities



Autonomy



Adaptation



Cognition



Human-robot
interaction



Sensor
fusion

APPLICATION EXAMPLE

VIPER™

