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Sensors

US Industry Study with Forecasts for **2014 & 2019**

Study #2662 | September 2010 | \$4900 | 373 pages

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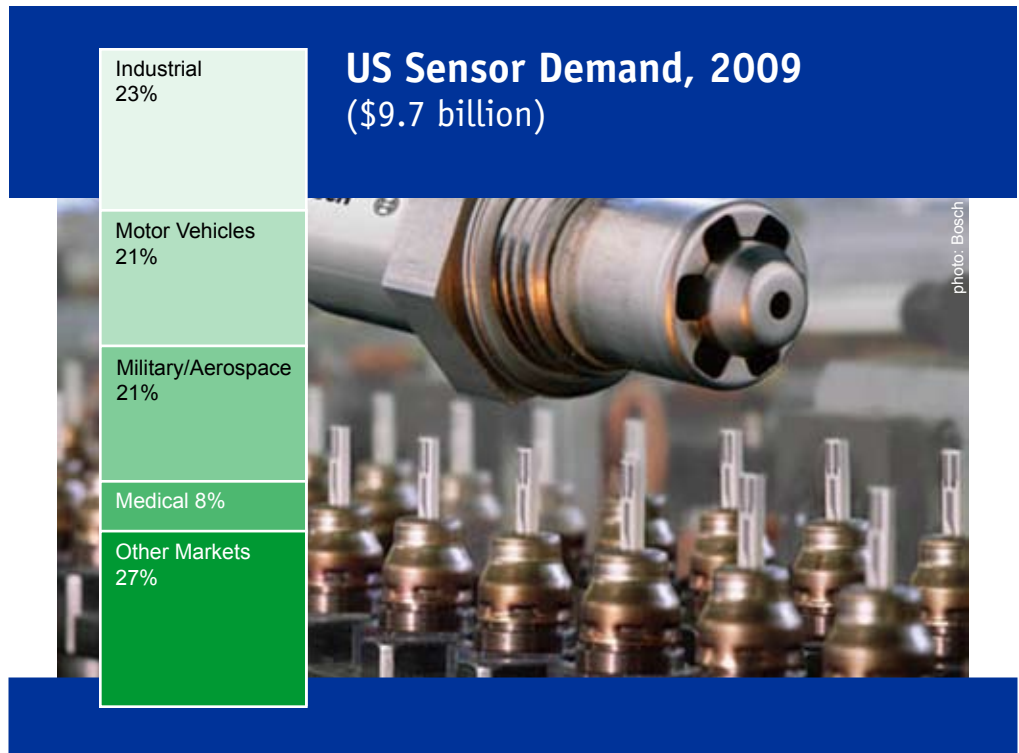
Rebounding motor vehicle production will boost demand for automotive OEM sensors, while high penetration sensors (e.g., tire pressure, occupant positioning) will provide aftermarket opportunities.

US demand to rise 6.1% annually through 2014

Demand for sensors in the US will rise 6.1 percent per year to \$13.1 billion in 2014, a strong recovery from low 2009 levels. A rebound in motor vehicle production will boost demand for automotive original equipment manufacturer (OEM) sensors, while the high penetration levels achieved for products like tire pressure monitoring and occupant positioning sensors will provide some aftermarket opportunities. Sensor demand will further benefit from the improved outlook for both process manufacturing and industrial machinery shipments. Beyond these macroeconomic factors, improvements in sensor technology, especially in areas such as micro-electro-mechanical systems (MEMS), photoelectronics and optoelectronics, will support gains. Furthermore, despite the maturity of many sensors, there are a number of markets where new applications will boost demand.

Motor vehicle market to be fastest growing

Motor vehicles are generally the largest end use for sensors in the US; however, with the sharp downturn in vehicle production, this market fell behind industrial applications in 2009. Through 2014, demand for motor vehicle sensors in the US will advance 14 percent annually to \$3.9 billion in 2014, supported by a rebound in motor vehicle production, coupled with the rising use of



newer sensor-laden systems (e.g., variable-valve timing, cylinder deactivation, direct fuel injection, electronic stability control and roll-over protection systems). As a result, motor vehicles will once again become the leading market for sensors well before 2014 and will account for more than half of the overall increase in sensor demand between 2009 and 2014. Because of the sheer size of the recovery in the large motor vehicle market, the other leading markets will all perform at a below average pace. Still several of these markets will post solid gains, including industrial machinery and medical applications, which will both rise more than four percent per year through 2014.

Proximity/positioning sensors to lead gains

Among the various sensor types, proximity and positioning and chemical property sensors will see the most rapid increases. Proximity and positioning sensors will benefit from the rebound in motor vehicle production and industrial machinery shipments, as both are important markets for these sensors. In addition, these products are used in newer automotive applications such as electronic stability control systems and advanced airbags, which are expected to be offered in an increasing share of new vehicles.

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Sample Text, Table & Chart

MARKETS

Military/Aerospace Sector Outlook

US defense budgets received a boost for much of the past decade as the events of September 11, 2001 refocused attention on national security issues and major military activities were engaged in Afghanistan and Iraq. The 1999 to 2009 period saw strong growth in military spending, with federal government outlays on defense more than doubling to \$779 billion. Going forward, US defense spending is expected to show more modest growth, as the conflicts in Iraq and Afghanistan draw down. Still, military budgets will continue to be stimulated by geopolitical factors, most notably instability in various regions of the world, the Middle East in particular (although by no means exclusively). In addition, ongoing concerns over the threat of terrorism virtually assure a continued emphasis on national defense and homeland security within the federal government. National defense expenditures are expected to rise 3.0 percent annually to \$905 billion in 2014.

Shipments of aerospace equipment -- including civilian aircraft, military aircraft and space vehicles -- in the US are projected to increase to \$108 billion in 2014. The economic downturn had a negative impact on aerospace equipment shipments for both commercial and business aircraft; however, output is expected to rebound to the depressed levels registered during the 2004 to 2009 period as the economy recovers. As the overall economy recovers, demand is expected to increase for regional aircraft, turboprop aircraft and helicopters as well as larger commercial planes. An additional boost will be provided by the introduction of several new products over the next decade, such as Boeing's new 787. Exports, especially to Middle Eastern nations which have been rapidly developing transportation infrastructures, are expected to be a major source of business for aircraft manufacturers going forward. However, strong competition from commercial airliners from foreign manufacturers, consolidation

**SAMPLE
TEXT**

TABLE V-6

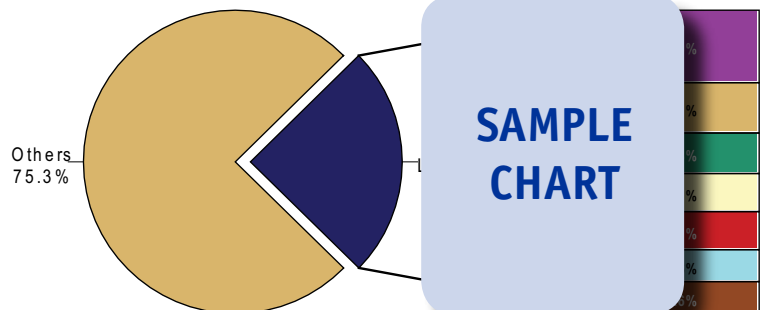
MOTOR VEHICLE ENGINE & DRIVETRAIN SENSOR MARKET (million dollars)

Item	1999	2004	2009	2014	2019
Motor Vehicles & Parts Shipments (billions)	500	550	600	650	700
\$ engine sensors/000\$ vehicles & parts	7	7	7	7	7
Engine & Drivetrain Sensor Market	3500	3500	3500	3500	3500
Process Variable	1000	1000	1000	1000	1000
Proximity & Positioning	1000	1000	1000	1000	1000
Physical Property	1000	1000	1000	1000	1000
Other	500	500	500	500	500
% engine & drivetrain	7	7	7	7	7
Motor Vehicle Sensor Market	2500	2500	2500	2500	2500

**SAMPLE
TABLE**

CHART VI-1

US SENSOR MARKET SHARE BY COMPANY (\$9.7 billion, 2009)



**SAMPLE
CHART**

Sample Profile, Table & Forecast

COMPANY PROFILES

Stoneridge Incorporated

9400 East Market Street
 Warren, OH 44484
 330-856-2443
<http://www.stoneridge.com>

Sales: \$
 North A
 Employ

Key Pro

Stoneridge Inc. is a leading manufacturer of engineered electrical and electronic components. The Company serves the automotive, medium-duty commercial, and off-highway vehicle industries. The Company operates through two segments: Electronics and Control Devices.

The Company competes in the US sensor industry through the Control Devices segment, which generated sales of \$174 million in 2009. Through this segment, Stoneridge produces sensors, switches, actuators and other electronic products. These products are used to monitor, measure and activate motor vehicle systems in automobiles, trucks, and agricultural and off-highway vehicles. Specific systems include emissions, safety, powertrain, braking, climate control, steering and suspension systems. According to Stoneridge, the Control Devices segment competes with such firms as BEI Sensors (Goleta, California), a subsidiary of Schneider Electric SA (France); Delphi Automotive LLC (Troy, Michigan); TRW Automotive Holdings Corporation (Livonia, Michigan); Continental AG (Germany); and DENSO Corporation (Japan).

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**SAMPLE
PROFILE**

TABLE IV-1

SENSOR SUPPLY & DEMAND
(million dollars)

Item	1999	2004	2009	2014	2019
Manufacturers' Shipments (bil \$)	300	350	350	350	350
\$ sensors/000\$ manufacturing	10	10	10	10	10
Sensor Demand by Type					
Process Variable	10	10	10	10	10
Physical Property	10	10	10	10	10
Proximity & Positioning	10	10	10	10	10
Electrical Property	10	10	10	10	10
Chemical Property	10	10	10	10	10
Imaging	10	10	10	10	10
Other	10	10	10	10	10
- net imports	10	10	10	10	10
Sensor Shipments	10	10	10	10	10
price deflator (2005=100)	100	100	100	100	100
Sensor Shipments (mil 2005\$)	85	127	110	130	125

**SAMPLE
TABLE**

"Demand for pressure sensors will increase 5.6 percent per annum to \$1.2 billion in 2014. The recovery in industrial production, especially growth in the process industries, where pressure sensors are widely used, will support demand. In addition, the rebound in motor vehicle production will benefit pressure sensor manufacturers offering tire pressure monitoring products. Although basic pressure-sensing technologies are well established, there is some potential for market-expanding technological innovation, particularly in ..."
 --Section IV, pg. 66

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OTHER STUDIES

World Material Handling Products

Global demand for material handling products will rise 6.5% annually through 2014. The US will be among the fastest growing markets, along with India and China. Conventional products will benefit from recovery in developed areas while advanced/automated types will post the best gains. This study analyzes the \$82 billion global material handling product industry, with forecasts for 2014 and 2019 by type, market, world region and for 37 countries. It also evaluates company market share and profiles industry participants.

#2687 October 2010 \$6100

World Lighting Fixtures

Global lighting fixture demand will climb 5.8% annually through 2014. China will account for one-third of all new demand, surpassing the US to become the largest market. Vehicular lighting will grow the fastest based on increasing motor vehicle output and a shift toward more expensive units. This study analyzes the \$96 billion world lighting fixture industry, with forecasts for 2014 and 2019 by product, market, world region and for 24 countries. It also evaluates company market share and profiles industry competitors.

#2684 September 2010 \$6100

World Automotive Sensors

Global demand for light vehicle OEM automotive sensors will advance 11.8% annually through 2014. North America will be the fastest growing region, far outpacing the Asia/Pacific and other regions based on a rebounding US market and higher per-vehicle sensor revenues. This study analyzes the \$9.1 billion world automotive sensor industry, with forecasts for 2014 and 2019 by product, world region and for 23 countries. It also evaluates company market share and profiles industry participants.

#2640 June 2010 \$5700

Automotive Aftermarket in North America

The aftermarket for light vehicle components in North America will increase 2.9% annually through 2014. Mechanical products will remain the largest category while electronics grow the fastest. The dominant professional service provider segment will outpace the DIY market. This study analyzes the \$66 billion automotive aftermarket in North America, with forecasts for 2014 and 2019 by country (US, Canada, Mexico) and product. It also evaluates company market share and profiles industry participants.

#2606 March 2010 \$4800

World Light-Duty Green Vehicles

Global "green" vehicle demand will grow rapidly through 2013, driven by government subsidies, technology breakthroughs and erratic oil prices. North America will remain the largest and fastest growing market. Conventional hybrid-electric vehicles will surpass natural gas types to become the most commonly sold. This study analyzes the 1.8 million unit world green vehicle industry, with forecasts for 2013 and 2018 by type, world region and for 13 countries. It also evaluates market share and profiles industry players.

#2510 August 2009 \$5700

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