

Group: 6

CETIS 26

TECHNICAL HIGH SCHOOL

Speaker: *Juarez Lagarde Luis*

Enrique
Study members:

Hernández Ramírez José Alberto
Olguín Maqueda José Antonio
Ortiz Ríos Luis Francisco
Ramírez Nemecio Marlon

Teacher: Cerón Obregón

Prime

Theme 1
Systematization of fundamental technologies in industrial robots for manufacturing use

Sub-theme 1

Sensor Technologies.



Sensor technologies



Atitalaquia, Hidalgo, Mexico



How have sensor technologies changed manufacturing?

The use of sensor technologies have transformed the Robots industry. As a result, productivity has increased improving the manufacturing quality, processes, and working conditions.



Sensor technologies



Atitalaquia, Hidalgo, Mexico

Sensors aiding robots

- A sensor is an object whose purpose is to detect events or changes in its environment, and then provide a corresponding output. Among the types of sensors, we have



Vision

Touch

Hearing



- Could robots use the taste and smell senses?



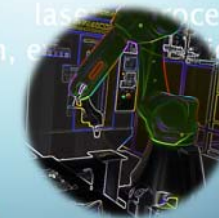
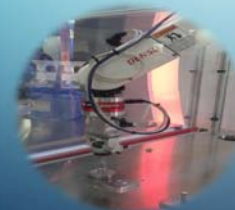
Sensor technologies



Atitalaquia, Hidalgo, Mexico

Sensor technologies

- Manufacturers have developed new technologies to improve sensors, they also found new ways for: Measuring forces with tactile sensors, teaching robots, tomography, magnetic field control, laser processing systems, collision detection, etc.



Sensor technologies

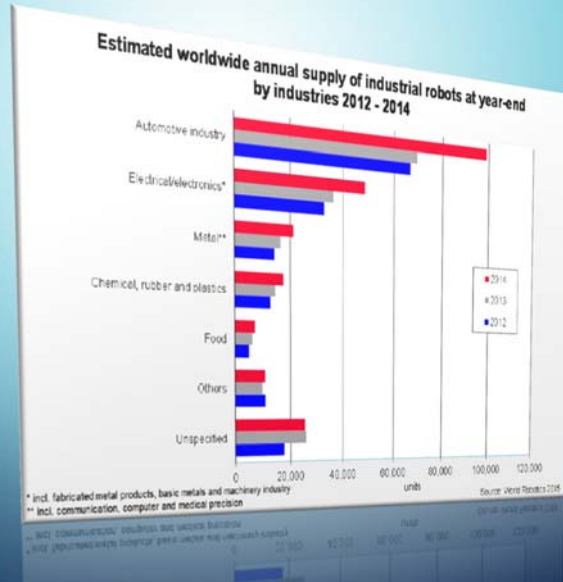


Atitalaquia, Hidalgo, Mexico

Robots in Manufacturing

What about Mexico?
– Mexico has become a HUB for car manufacturers.

–The operational stock of multipurpose industrial robots for North America will be 323,000 units in 2018.



Sensor technologies



Atitalaquia, Hidalgo, Mexico

Challenges

- ✓ Difficult to differentiate partially hidden objects.
- ✓ Objects cannot be recognized in specific environments.
- ✓ It is difficult to use a sense of smell.
- ✓ It is difficult to identify specific voice when several people are talking.



Sensor technologies



Atitalaquia, Hidalgo, Mexico

Conclusion

Sensor technologies increase competitiveness of manufacturing, factories will be Smart and the environment men-machine will be friendly. Workers will focus in tasks which require creativity, common sense and dexterity.

We live in one of the most polluted area of the world, our community is living literally on a time bomb because of the high risk of all the industrial waste, due to the opportunity to participate in this event, we have grown interest in the new technology that is being developed, and we hope to collaborate with new ideas to change the environment in which we all live in.



Sensor technologies



Atitalaquia, Hidalgo, Mexico

THANK YOU FOR YOUR ATTENTION



Sensor technologies



Atitalaquia, Hidalgo, Mexico