BML300

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ROBOTICs:-

Robot is a machine programmable by a computer capable of carrying out series of actions automatically.
A robot can eb guided by an external device or controller.

It is a branch of engineering involving conception, design and manufacture and operation of robots.

Robotics market trends:-
house cleaning, education, hospitality, logistics and medical

The CAGR if medical robots market is predicted to be 16.1%. And so is pharmaceuticals market growth.
The robotics will expand in service sector, agriculture and hospitality

Most interesting market is humanoid robot market
with a massive and largest CAGR increase of 50.2%.
every country wants humanoids in defense.

Industrial robots are heavy-duty machines designed to automate the manufacturing process.
they are equipped with at least one robotic arm, and often complete repetitive and dangerous tasks in warehouses.

Country with the highest number of robotic workers are south korea, japan and Germany.

Exam imp

Main types of industrial robots:-

1). Cartesian robots:- work on three linear axes using X,Y and Z
2). SCARA robots:- selective compliance articulated robot arm have two parallel rotatory joints that provide compliance in plane. Used in assembly and lateral movements.
3). Articulated robots:- it resembles a human arm and have many joints used for packaging, painting, metal casting.
4). Delta robots:- used for manufacturing in the food, pharma and electronic industries and these are spider like robots, or example picking out a specific pill from a pile of pills.
5). Cylindrical robots:- good for tight spaces and have one rotatory joint and a prismatic joint for linear motion.

Robotics in society:-
Healthcare and transportation to entertainment. Robots such as bomb disposal can be used in military setting.

PUMA= programmable _____

Lego entered humanoid research as everyone wanted to kickstart in this field

MQ-1 predator :- firstly armed unmanned aerial vehicle(UAV)

Actroid = term given to first humanoid robot with strong visual human characteristics

Robonaut new version of NASAs humanoid robot astronaut made byu NASA and general motors

Practically humanoids are the most sensible choice

they are :-
multipurpose:- sensing,manipulation
adaptability:-
collaboration:-human motion easy to understand

human-like appearance:-

First computer controlled robot:- Raibert