

## **Grace Court International School**

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**If I could invent something new, I would invent a Robot that can stand as a life guard in Swimming pools.**

A robot is a machine that carry out a complex series of actions automatically.

Many scientists have invented this robots but they are no better than us, they are still humans that invented it and we also have the ability, skills, and imagination to invent something and become great inventors.

This robot that I would love to invent will be named Aqua guard. Aqua guard is a robotic life guard system designed to enhance pool safety and assist human life guards. It is a compact, buoyant robot that patrols the pool area, monitoring swimmers safety and responding to potential emergencies.

In order to invent a robot some of these materials are needed, waterproof materials e.g acrylic, PVC, or ABS plastic, motors e.g DC or stepper motors, control system e.g Arduino, or raspberry pi, power source e.g batteries or a water proof power supply, sensors e.g ultrasonic, infrared, or water sensors, propellers or thrusters, waterproof connectors and wiring.

Some steps that I will use to make the robot are: firstly, is to design and plan the robot's shape size, and features. Secondly, cut and assemble the body and components using waterproof materials. Thirdly, install motors, control systems and sensors. Fourthly, add propellers or thrusters for movement. Fifth, step implement a power source and wiring. Sixth step, program the control system for autonomous or remote controlled operation. Seventh step, test and refine the aqua robot in a water environment. To make it more mesmerizing, I will add water proofing and corrosion protection, choose suitable materials for under water use, consider buoyancy and stability, add sensors for navigation and obstacle avoidance, and a waterproof camera for under water.

The features of this robot are: Advanced sensors and AI powered software to detect swimmers distress, real time analytics for human life guard monitoring, automated alert system for emergency response, propulsion system for rapid development to swimmers in need, integrated first aid kit and rescue equipment, weather-resistant and water proof design.

This robot will be capable to patrol the pool perimeter and surface, identify swimmers in distress e.g. struggling, unconsciousness, Alert human life guard and pool staffs via audio/video signals, deploy rescue equipment e.g flotation devices, rescue tubes and provide real time video feed for remote monitoring.

Some things the society will benefit from this robot are: enhanced pool safety, reduced response time in emergencies, assistance for human life guards, increase piece of mind for pool-goers.

Making aqua robots might be hard but I would follow the footsteps of Thomas Edison the person that invented light bulb who tried and got it at the 99th time.