IF I COULD INVENT SOMETHING NEW

 If I could invent something new, I would create a machine that would remove any toxicants in water. Thereby making water clean.

 Access to clean water is a fundamental human right yet millions of people around the world are forced to drink contaminated water, leading to many health issues and death. I will utilize a combination of advanced technologies such as Nano filtration, reverse osmosis, Ultraviolet treatment and biological treatment stage. When the machine is placed in water, the contaminants are drawn to absorbent material which traps them allowing clean water to pass through this process continues until the toxicants become saturated and the water becomes very clean. To do this I would incorporate the use of many sensors each for a particular contaminants like pH sensors for detecting contaminants like heavy metals, conductivity sensors for detecting changes in water conductivity indicating presence of contaminants like salts and metals, turbidity sensors for detecting suspend solids and viruses just to mention a few.

 The device durability and resistance to corrosion will be ensured through the use of titanium and stainless steel. Stainless steel is corrosion resistant while titanium has low environmental footprint. The machine will have programmable logic controllers. Energy efficiency will be optimized through the use of a waterproof lithium-ion battery. The machine will have actuators such as pumps and other devices to regulate the water purification process. The machine will even be capable of removing radioactive materials from water.

 After the machine is made, rigorous testing and validation will be conducted using diverse water source and contaminants scenarios ensuring its efficiency. The impact of the machine will be felt globally. Communities that lack access to clean water will no longer suffer from waterborne diseases. Farmers will be able to irrigate their crops with clean water thereby improving crop yield. Clean water could be used for cooking, preserving the life of many people. Furthermore, the water purifier would contribute to achieving the second, third and most importantly the sixth goal of the United Nations sustainable development goal.

Jesimiel Sarki

Elpis international school

J.S.S.3