NeZOOMi

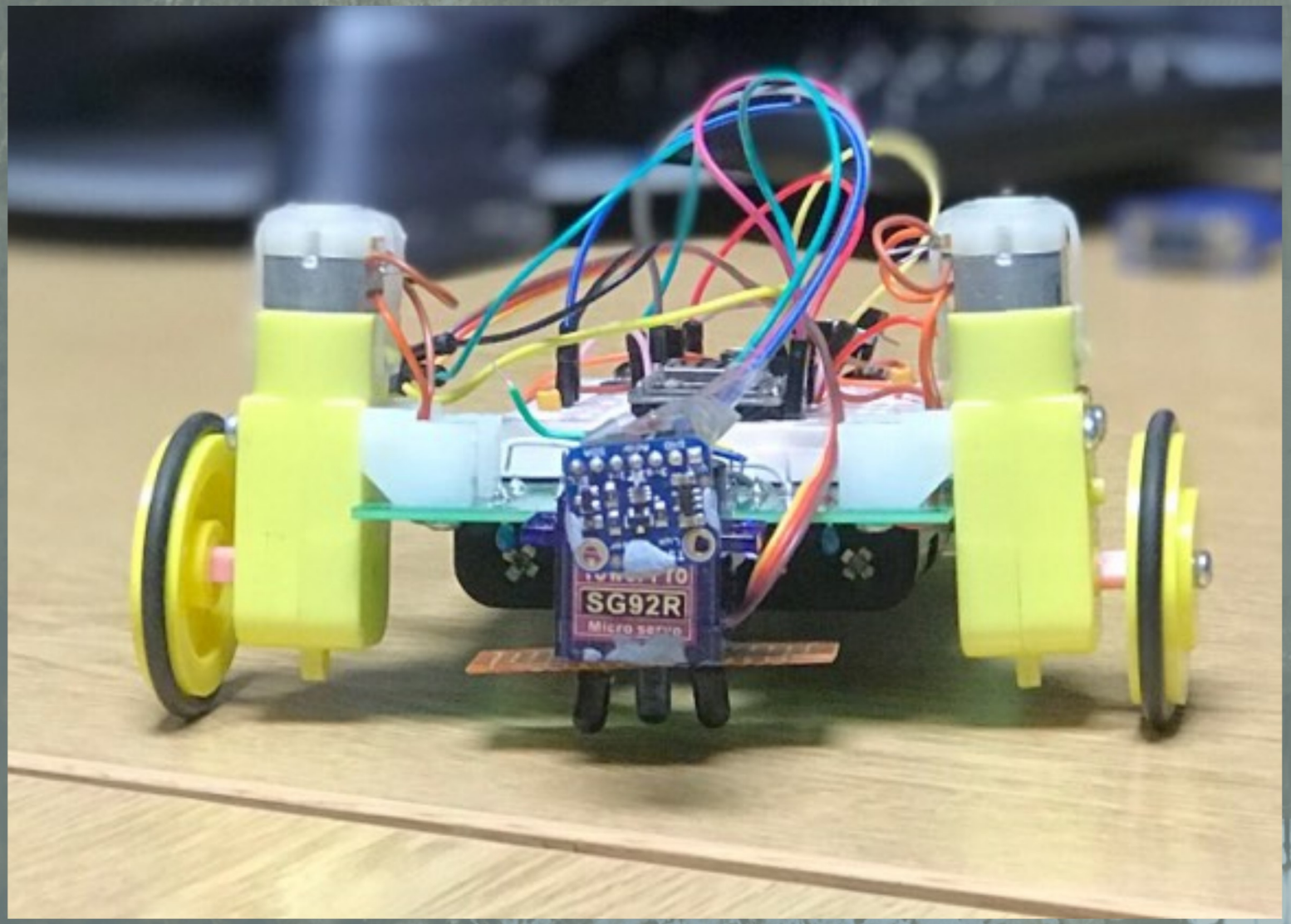
See the Light

A safe and cost effective way to undertake essential maintenance in challenging areas.

What is NeZOOMi?

NeZOOMi is a purpose built vehicle specially designed for navigating illuminated, but hard-to-reach areas such as pipes and sewers. It uses a light-sensor to detect its position relative to light sources, and autonomously follows those sources to reach its destination. NeZOOMi offers a better value and more robust system than the other, more convoluted control systems for this type of vehicle on the market. The vehicle can also perform other associated functions such as cleaning, based on customer specifications. sophisticated and efficient cleaning mechanisms such as a mini vacuum cleaner or a rotary brush suck debris and

filter out contaminants from water or other fluids. Control is via Wi-Fi, so it can be monitored at a safe distance. By accessing our website, customers can remotely control vehicle's movement and tracking. The website displays a table containing real-time sensor readings of lux values and plots a graph of readings. Hence, customers can monitor vehicle's direction, location and performance. Since the vehicle is able to travel autonomously instead being remotely controlled, it is less labour intensive.

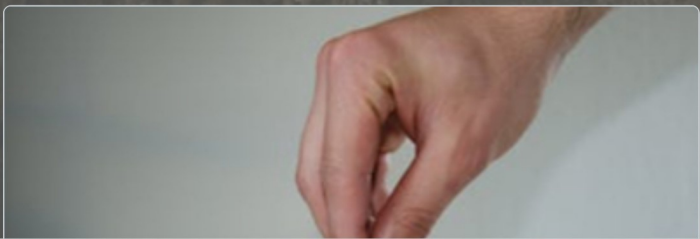


Safe

Because of NeZOOMi's unique light-following system, no human controller is required. This enables the exploration of areas, particularly tunnels and pipes, which would be too dangerous to reach otherwise.

Powerful, Proven Technology

NeZOOMi is based on the popular Espressif's(tm) ESP8266, a tried-and-tested Internet of Things microcontroller, which provides robust Wi-Fi capabilities, fast processing speeds, and unbeatable cost.



Our Motivation

Underground pipes carry miles and miles of drinking water, ground water and sewage. Problems such as leakage, corrosion and root growth can all allow harmful contaminants into drinking water. This poses a serious health risk. Cleaning of these pipes are expensive and difficult due to inaccessibility. Products with complex and bulky camera technologies have been developed, which are useful for inspection purposes but not necessarily essential for cleaning. Current technologies are expensive, large in size and labour intensive. Our product allows cheap, autonomous and cost efficient sewage and pipe cleaning. With exceptional cleaning features and small size, our product can easily solve the problem of kitchen and bathroom sink blockage. Equipped with a light tracking device and multi-purpose cleaning equipment, our product gets the job done with the simplest and cheapest method.