R.O.E.D

(Remotely Operated Explosives Detector)

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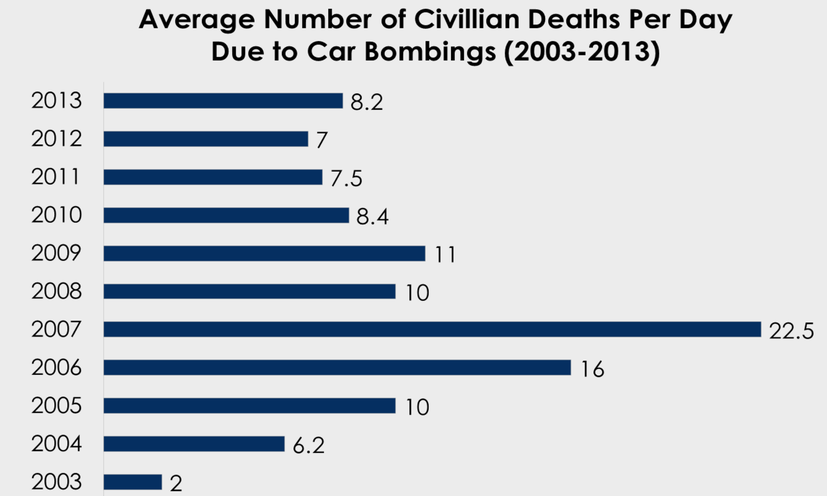
Powered by Sphero©

Sphero with Clear Shell

The ROED, is a Sphero modified to have a clear shell and multiple, live -feed, high definition micro cameras.

The Sphero has a diameter of 3" making it about the same size as a baseball. The ROED incorporates micro cameras into an Omni-directional vehicle. Making it highly useful for undercarriage vehicle inspection. In today's combat, car bombs are highly popular and highly damaging. A technology that can keep undercarriage inspectors, bomb dogs, and civilians at a safe distance from "high risk" vehicles is a technology whose value cannot be expressed.

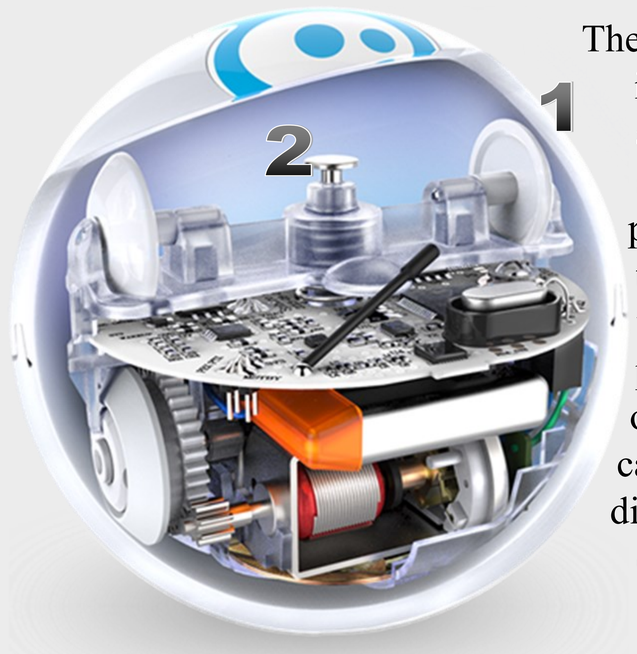


Other Applications

The ROED has many other uses besides detecting explosives. One of the best uses besides explosive detection we have found is pipe inspection. The ROED is perfect for inspecting pipes for three reasons. (1) ROED has a diameter of 3.7" making it small enough to fit in a majority of pipes. (2) Pipes are very dark, the ROED has 6 led lights that will allow the cameras to inspect the dark pipes. (3) The Omni-directional camera views will give pipe inspectors a full look at every inch of the most highly valued and used pipe line in our country. The image on the right is a pipe inspection camera already in use, the problem with this system is that the device has to be attached to a cord. The ROED can move with no cords or tethers making it ideal for pipe inspections.

Camera Implementation

Sphero Section View



The only change to the Sphero will be the implementation of cameras. In the above picture a Sphero is shown with a section of the outer shell gone. Our plan is to mount two-four cameras in the open space between the two drive wheels (1). We plan to use the middle post (2) as a main support for mounting our cameras. With multiple mounted cameras the ROED will have Omni-directional movement and Omni-directional camera views.