

General Information

About the CEO

Dr. Russell Davis has a Doctor of Science, Applied Scientist, and Master of Science degrees in Computer Science from the George Washington University. He also earned his Bachelor of Science in Computer Engineering from Florida Tech. In addition to over 25 years experience working Information Technology Security Dr. Davis is a Project Management Professional (PMP).

About the Company

Femtosecond a small Veteran-owned company on GSA Schedule 70 Special Item Number 132-51, contract GS-35F-0224T. We provide IT Security Consulting, project management, and R&D for customers that require innovative approaches to complex problems. The invention described in this brochure is addressed in U.S. Patent 7,191,707 B1.

Femtosecond®

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New Weapon Invention



Femtosecond Inc.

A Patent Holder
Looking for a
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Overview

Introduction

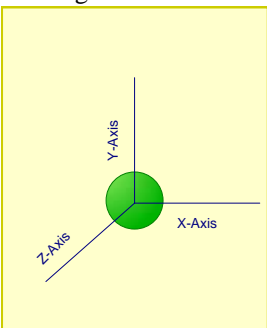
During the allied assault on Tora Bora, the best western armaments were used without getting Osama Bin Laden. The unique cave arrangement resulted in a predicament for the current assortment of weapons. This presented the idea of a spherical explosive device to traverse fortifications current weapons cannot. The device could bounce and roll through deep tunnels, able to reach targets current weapons cannot.

Approach

Consider the characteristics of a ball (or sphere). When dropped, it can bounce, roll, slide, or just sit still. The ball can be any size such as the size of a grape fruit or large beach ball. A ball can bounce down stairs, around corners, through tunnels, down air shafts, or even float as moving mines.

To make the technology viable calculations determine where the device is. The balls operable without the use of a Global Positioning System (GPS) or any external navigation system. To do this, velocity sensors are positioned along each axis (x, y, & z). Calculations determine where the sensors are aligned as the ball rolls. A predictor function

is used to determine where the next sensor alignment should be. If this is off it indicates that the ball has changed direction due to an impact.



By knowing where the detectors are aligned, the new position can be calculated. Identifying the starting position and speed (0 or greater), the relative position is continuously calculated.

The next component is the charge. This would surround the detectors (located in the center) and provide the desired result (such as with a bursting charge).

Use Cases

The simplest case is when the ball stops moving. A staircase, tunnel, or air shaft leading into a deep bunker would provide a portal of entry for the ball. Consider a storm drain or an air shaft with a metal screen that restricts objects, then the first ball would eliminate the screen and those that followed would take care of the rest.

A second case would be when there is an approximate location where the device should be detonated. For example, getting the device to explode once it reaches the 8th floor of a 20 floor stairwell. This could be programmed into the device such that when it reaches its closest position, it will blow up. If intelligence indicated that the desired target was located 150 meters a cave complex, the device could be set to detonate at closest approach.

Consider the following hypothetical case. The year is 2015 and a hostile power has just immobilized every US GPS satellite (either impacted such as the successful Chinese destruction of a weather satellite or disabled by a directed energy weapon). US weapons that rely on the GPS for pin-point targeting are degraded. What is the contingency plan? How will we be able to fight a war? The spherical device described is not a panacea weapon but rather one that complements the existing weapons and

provides a contingency should our primary navigation aids fail.

Returning to the Tora Bora tunnel complex, the tunnels cut into the mountain and included air shafts. The enemy stockpiled quantities of munitions deep inside the mountain. One sphere detonating the stored armaments would have converted Tora Bora from a safe haven into a death trap with secondary explosions.

Non-military use could be used to track the path used for caves and underwater movement. In these cases, the path traveled would be recorded and reviewed later. If one needed to know the flow patterns within a pipeline, the device could record movement. Pipeline use would require that the specific gravity of the device be configured to match the surrounding fluid (water or chemical). It could also be used as a path finder for underground (or underwater) travel.

Goals

We are in search of a company that has the weapon manufacturing practice and is interested in licensing this patent.

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