At Omnitek Partners, LLC we design and produce novel inertial igniters that can satisfy practically all no-fire and all-fire requirements. All of our inertial igniters are fully tested using drop tests, centrifuge tests, and air gun tests to ensure that they fulfill safety, no-fire and all-fire requirements. Our highly developed and advanced computer modeling and analysis capabilities allow for the development of cost effective custom designed inertial igniters.

Inertial Igniters Uses & Design Features

- Fully mechanical miniature inertial igniters can be integrated into small thermal batteries and similar applications.
- Inertial igniters are ideal for low all-fire acceleration levels encountered in missiles.
- Inertial igniters can be designed to operate with percussion primers or with different pyrotechnic materials.
- Inertial igniters are designed to satisfy very high reliability requirements of up to 99.9 percent with 95 percent confidence level.
- Inertial igniters can be designed to satisfy the strictest safety requirements.

Inertial Igniter Patents *

1. *Axially compact and low-volume mechanical igniter for thermal batteries and the like* , U. S. Patent Number 7,832,335, issued November 16, 2010.

2. *Mechanical delay mechanisms for inertial igniters for thermal batteries and the like* , U. S. Patent Number 7,587,980, issued September 15, 2009.

3. *Multi-stage mechanical delay mechanisms for inertial igniters for thermal batteries and the like* , U. S. Patent Number 7,587,979, issued September 15, 2009.
4. *Axially compact mechanical igniter for thermal batteries and the like* , U. S. Patent Number 7,437,995, issued October 21, 2008.

* Ten other U.S. patents are pending.