



**RDECOM**



Army Vice Chief  
of Staff GEN  
Richard A. Cody

"I applaud the efforts of this program that recognizes the many individuals whose efforts have directly impacted our Soldiers in the field. The inventions submitted demonstrate the vast experience within our Army, to include the laboratory community and its commitment to improving the readiness of our Army."

ARMY ★ SPOTLIGHT

# TARDEC Projects Win 2007 Army Greatest Inventions

SELF PROTECTIVE ADAPTIVE ROLLER KIT (SPARK)



## SPARK:

*Rolling Towards Victory*

SPARK rollers save Soldier lives. About 243 roller kits are installed in front-only configurations on both the HMMWV and RG-31. In documented Improvised Explosive Device strikes, SPARK has dramatically improved crew survivability, preventing loss of limb and severe brain trauma.

Additionally, equipment and vehicle battle losses have been significantly reduced for troops supporting *Operations Enduring* and *Iraqi Freedom*.



**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**



# SPARK:

*Rolling Towards Victory*



**SELF PROTECTIVE  
ADAPTIVE ROLLER KIT  
(SPARK)**

The Self Protective Adaptive Roller Kit (SPARK) provides additional stand-off to the vehicle and crew against pressure activated or Victim Operated Improvised Explosive Devices (VOIED).

The rollers can be installed on the front and rear of vehicles. They apply variable amounts of downward pressure to adapt to a possibly emerging threat.

By rolling over and activating the pressure switch out in front of a vehicle, the VOIED is often detonated in front of the vehicle instead of underneath the vehicle. This greatly reduces the risk of injury to the crew and battle damage to a vehicle and its equipment.