

Secure Truck: The Missing Link in Heavy-Duty Vehicle Safety

Executive Summary & Proposal for Strategic Partnership / Investment

The Critical Industry Gap: A Multi-Billion Dollar Vulnerability

Modern regulatory mandates (such as the IIJA for AEB systems) advance collision avoidance, but they all fundamentally depend on the vehicle's primary service brakes. When pneumatic, hydraulic, or electronic lines fail or overheat, even the most sophisticated electronic safety systems become completely ineffective.

- **High Frequency:** Brake-related issues contribute to an estimated 40,000 heavy-duty truck (HDT) accidents each year in the U.S. alone (out of ~500,000 total commercial vehicle crashes).
- **Catastrophic Impact:** Thousands of preventable fatalities, severe injuries, and billions of dollars in cargo loss, litigation, and fleet liability annually.
- **The Structural Flaw:** Until now, heavy vehicles have lacked a truly isolated, failsafe secondary stopping mechanism.

The Solution: A True Redundant Mechanical Braking System

(Patent-Pending)

Secure Truck introduces a patented, autonomous mechanical emergency braking architecture designed to guarantee stopping power when all primary systems fail.

- **100% Autonomous & Fail-Safe:** Operates completely independently of the vehicle's electrical, pneumatic, or hydraulic networks—requiring zero external power to deploy.
- **Pure Mechanical Reliability:** Engineered with robust mechanics and minimal moving parts, eliminating single-point failure modes.
- **Universal Architecture (OEM & Aftermarket):** Modular "add-on" design adaptable to new commercial manufacturing lines (OEM) as well as retrofit integration into existing fleets.

Traction & Validation: De-Risking the Technology

- **Intellectual Property:** Proprietary core mechanism protected under a pending patent (**Patent-Pending**).

- **Proof-of-Concept (POC):** A functional, scaled physical Proof-of-Concept model has been constructed and tested, successfully validating the mechanical kinematics, engagement reliability, and fundamental operating principles.
- **Engineering Maturity:** Backed by detailed CAD modeling, comprehensive stress evaluations, and system-level architecture ready for prototype scaling.

The Market Opportunity

- **For Tier-1 Suppliers & OEMs:** Establish market leadership and competitive differentiation by solving heavy transport's most critical safety vulnerability ahead of mandatory regulatory pressure.
- **For Investors & Strategic Partners:** Ground-floor entry into a foundational, IP-protected automotive safety technology targeting a multi-billion dollar global market across commercial trucking, buses, and specialized heavy transport.

Call to Action

We are seeking strategic partners, Tier-1 automotive co-developers, and forward-thinking investors to participate in advancing the system from functional proof-of-concept into full-scale vehicular prototyping, field testing, and commercial certification.

About the Founder:

Dan Nahoom is an experienced mechanical engineer with over four decades of multidisciplinary R&D and complex mechanical systems leadership.

Contact Information

Dan Nahoom | Mechanical Engineer

Email: danahoom@gmail.com

Phone & WhatsApp: +972-52-846-0350

<https://www.the-secure-truck.com/>