



Innovative Manufacturing Engineering

32711 Glendale Ave. Livonia MI 48150-1611 734-466-8750 imedetroit.com

## - PATENTS -

We have created a rich history of product design success and innovative solutions development which is visible across a variety of applications.

1. **5409289** – Aluminum frame assembly for GM EV-1 Electric Vehicle
2. **5538377** – Enclosed Fastener for Fuel Cell Protection
3. **5934851** – Nondestructive Fastener Attachment Method
4. **5971686** – Fastener Capture and Containment System
5. **6688825** – U-nut Fastening System and Method of Manufacture
6. **7527464** – Lock, Locate and Anti-Rotation Design for Fastener Attachment
7. **7635243** – Engineered Load Cell System for Joint Tension Assurance
8. **7658579** – Multiple Fastener Attachment System
9. **7661916** – Cam Assembly for Vehicle Suspension Adjustment
10. **8197167** – Compression Type Load Cell Attachment Methodology
11. **8591157** – Special Retention Feature for Direct Tension Indicator (DTI)
12. **8920089** – Push to Lock Thermal & Sound Insulation Attachment Method
13. **D703034S** – Thermal Insulator Attachment Design
14. **8979456** – Thermal & Sound Insulation Attachment Jointly with GM
15. **9239071** – Direct Tension Indicator Plate and Assembly – Visual DTI
16. **9260088** – Hybrid Brake Pedal Feel System Jointly with Ford
17. **9239071** – Visual and Touch Verifiable Tension Indicating Fastening System
18. **9435368** – Direct Indicating Compression Design for Enhanced Tension Accuracy
19. **9447811** – Extreme Material Lightweighting Technique for Increasing Structural Strength
20. **APPROVED** – Fastening System for Joint Tension Assurance to Aluminum & Plastics
21. **APPROVED** – Ratchet Locking Fastener Resists Extreme Vibration or Continuous Impact
22. **PENDING** – Reactive Fastening System for Extreme Duty Applications
23. **PENDING** – Renewable Fastening System for Extreme Duty Applications
24. **PENDING** – Surface Fastening System for Extreme Duty Applications