

Component	LIRA Material	Aerospace Baseline
Box Structure	Carbon Steel (A36, 14-gauge)	Titanium Ti-6Al-4V Aluminum 6061-T6
Box Seal	EPDM Foam	Indium Blade Seal
Bag Seal	Rubber O-ring (EPDM)	Viton FKM
Thermal Control	-	Aluminized Mylar
Cushioning (Walls and Base)	3D-Printed Hexagonal Lattice (TPU)	Elastomeric Microlattice (Steel or Aluminum)
Bag Outer Layer	Nylon Fabric	Beta-Cloth (Fiberglass/Teflon )
Bag Middle Layer	Merino Wool	Ortho Fabric
Bag Inner Layer	Stainless Steel Mesh	Dacron

SUMMARY	
<b>What Works:</b>	<ul style="list-style-type: none"> <li>✓ Steel wool cushioning - Perfect match</li> <li>✓ Steel structure - Proves the concept</li> </ul>
<b>What We Saved:</b>	<ul style="list-style-type: none"> <li>✓ 75-97% cost reduction overall</li> <li>✓ All materials machinable in high school shop</li> </ul>
<b>What We Trade:</b>	<ul style="list-style-type: none"> <li>⚠ Weight: 2-3x heavier (steel box)</li> <li>⚠ Durability: 50-75 cycle seal life (vs 100+)</li> <li>⚠ Safety: Nylon is flammable (fire hazard)</li> </ul>