

## 2024-2025 Conrad Challenge- Spiderm

<p><b>Problem</b></p> <ol style="list-style-type: none"> <li>1. Pain while dressing</li> <li>2. Difficult bandaging curved wounds.</li> <li>3. Difficult treating large size of burn wounds with conventional burn patch</li> <li>4. Requires multiple supplies and professional expertise.</li> <li>5. Difficult for self-treatment</li> <li>6. Generates garbage</li> <li>7. Treatment entails a variety of procedures by professionals</li> </ol> <p><b>Existing Alternatives</b></p> <ol style="list-style-type: none"> <li>1. Burn Gel (impossible to fix on wound)</li> <li>2. Patch (Limitations based on wound size and body curvature)</li> <li>3. Emergency Burn Kit (Contamination/Not available for routine care)</li> <li>4. Conventional Cloth Bandage Dressing (Painful)</li> <li>5. <i>Spincare</i> or <i>Stem-Cell Spray</i> ( Low portability, High price)</li> </ol>	<p><b>Solution</b></p> <ol style="list-style-type: none"> <li>1. The spray type-emergency burn patch; hardens after spraying to protect the wound,</li> <li>2. Reduces patients' pain with its light formulation.</li> <li>3. Allows users to easily and immediately treat wounds.</li> <li>4. The biocompatible components of spider silk.</li> <li>5. Reduces dressing procedures.</li> <li>6. Reduce medical wastes.</li> </ol> <p><b>Key Metrics</b></p> <ol style="list-style-type: none"> <li>1. Sales figures</li> <li>2. Prices of Raw Material</li> <li>3. Cumulative purchase of raw materials</li> <li>4. Number of institute used the product</li> <li>5. Number of times mentioned in clinical case report</li> <li>6. Number of website visits through QE code</li> <li>7. Market Share</li> </ol>	<p><b>Unique Value Proposition</b></p> <ol style="list-style-type: none"> <li>1. Biocompatible ingredient from Spider Silk</li> <li>2. Spray Type = Less Pain / Easy to apply and remove to curved or large area</li> <li>3. 2 portable containerized Formulation. 1<sup>st</sup> bottle: dressing 2<sup>nd</sup> bottle: curing &amp; coating</li> <li>4. Waterproof infection-preventing formula</li> <li>5. Easy and handy treatment</li> </ol> <p><b>High-Level Concept</b></p> <p>Effective as <i>Spincare</i> and <i>Stem-Cell-Spray</i>, but more portable and affordable.</p>	<p><b>Sustainable Advantage</b></p> <ol style="list-style-type: none"> <li>1. Dramatically decreases pain during dressing</li> <li>2. The spider silk and polymer softens as it absorbs wounds after hardening</li> <li>3. Easy and instant dressing</li> <li>4. Portability</li> <li>5. An app with QR code training on product use, and fundraising for underdeveloped countries.</li> </ol> <p><b>Channels</b></p> <ol style="list-style-type: none"> <li>1. Social media</li> <li>2. medical supply distributors</li> <li>3. Medical retailer</li> <li>4. Retailers for household</li> <li>5. School District</li> <li>6. Local Government</li> <li>7. Fire Department</li> <li>8. International Relief Organization</li> </ol>	<p><b>Customer Segment</b></p> <p>Places where quick, pain-reducing, and effective burn treatment is needed</p> <ol style="list-style-type: none"> <li>1. Nursing home</li> <li>2. Military</li> <li>3. Hospitals</li> <li>4. Firefighting supplies, emergency rescue equipment</li> <li>5. Radiation Facilities</li> <li>6. Industrial Factory: ex. Steel, chemicals, food, etc.</li> <li>7. Science Labs</li> <li>8. Sports Facilities</li> <li>9. Household</li> <li>10. Schools</li> <li>11. Medically Underserved Areas</li> </ol> <p><b>Early Adopters</b></p> <ol style="list-style-type: none"> <li>1. Industry Factories</li> <li>2. Hospitals</li> <li>3. Military</li> <li>4. Education Institutes</li> <li>5. International Relief Organization</li> <li>6. Laboratory Facilities</li> </ol>
<p><b>Cost Structure</b></p> <ul style="list-style-type: none"> <li>● <b>One Time:</b> Facility investment, R&amp;D, Patent, LLC Registration, Trademark, License, Market research, Real-Estate, Website designing, Medical Device Approval</li> <li>● <b>Fixed:</b> Rent, Insurance, Tax, Salaries, Utilities, Advertisement, Recurring- R&amp;D, Accounting costs, Bottles, Domain</li> <li>● <b>Variable:</b> Raw Material, Containers, Logistics, Patent-Maintenance, Manufacturing upon sales</li> </ul>			<p><b>Revenue Streams</b></p> <ul style="list-style-type: none"> <li>● Sales</li> <li>● Investments: Angel Investors, Peer-to-Peer Lending, Venture Capitalists, Crowdfunding, Personal/Equity/Government Investments</li> <li>● Bootstrapping</li> <li>● Technology Royalty Agreement</li> <li>● Advertisement and Commercials on the App</li> </ul>	