Carbon Fiber Chain Mail Protective Armor

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The project tests the feasibility of constructing carbon fiber into a chainmail pattern. Designed for motorcycle protective clothing. Carbon fiber mail allows for higher protective levels with reduced weight and insolation. Motorcycle clothing constructed from carbon fiber mail has lower weight while offering higher levels of protection and airflow compared to other gear options such as leather and textile armors. The difficulty originates from constructing mail from a non-malleable materials. Traditional mail is made through bending and melding of metals to create a chain. The inability to bend or meld the composites after being set into a matrix is the targeted problem. The experimentation with different construction processes and procedures. Allowed for a proper product that had structural stability and reliability. Abrasion resistance was the intended form of protection for carbon mail armor. Abrasion is the resistance to wear while sliding across surfaces. Majority of motorcycle accidents involve abrasion damage due to sliding. Carbon fiber mail is meant to protect riders from abrasive injuries during crashes and slides. While providing a safer, lighter, and cooler option compared to leather and textile armors.

Awards Won:

Fourth Award of $500

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