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Basketball Footwear Design: The Guard Position  
Integration of performance, injury prevention and style.

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## Abstract

Basketball is the world's most popular indoor team sport and was the most watched team sport of the 2016 Rio Olympic Games. Basketball shoes are frequently linked to player performance and are arguably the most important innovative product connected to the sport. Benefits attributed to this product include: reducing injury rates, minimizing energy expenditure and enhancing athletic performance.

While the large number of basketball players presents a commercial market to footwear manufacturers, basketball shoes are not only worn by basketball players. The popularity as a spectator sport has expanded the commercial market, as basketball fans purchase shoes to emulate their heroes. In addition to this, sneakerheads (a subculture of sneaker lovers) purchases new and innovative designs as fashion apparel as an integral part of their lifestyle. Designing a new shoe that provides professional players with performance benefits and fashion aficionados with fresh interesting designs is essential, as high-profile players often represent fashion brands.

Basketball has five different player positions on court, each with specialised locomotion requirements and high physical contact. Understanding performance requirements of specific positions, and human physiology constraints allows design to extract new benefits, advancing player performance. Integrating this advantage with aesthetic and fashion development provides the opportunity to develop a fresh new concept basketball shoe. This design focuses on a shoe that provides injury prevention, performance and a fresh aesthetic design for professional basketball players in the guard position.

### **Keywords:**

Basketball, footwear design, injury prevention, performance, fashion, integration, industrial design

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