

## Fan Proof Goal Post With Optimally Offset Support Structure

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- Mechanical Engineering

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Football goal post are typically fabricated in a "slingshot" shape with a single gooseneck. Celebrating fans often tear down goal posts, even those that are marketed as being able to withstand fan loading, presenting a clear danger to the celebrating fans and a potential liability to athletic departments.

Researchers at Purdue University have developed a design for a goal post that consists of a dual gooseneck construction with the crossbar mounting locations carefully chosen for strength, stiffness, and durability. The additional material preserves an aesthetic appearance similar to the single gooseneck construction. The choice of placing the crossbar to gooseneck connections at the optimal offset distance gives several non-obvious advantages. This technology is designed to support the weight of 80 fans, each weighing 250 pounds.

**Advantages:**

- Preserved aesthetic appearance
- Possesses strength, stiffness, and durability

**Potential Applications:**

- Football stadiums

**People:**

- Szaroleta, William K (Project leader)
- Harpenau, Eric Lawrence
- Millikan, Zachary S
- Morris, Joel S
- Polk, Richard C
- Strange, Kraig M

**Intellectual Property:**

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**Contact OTC:**

Purdue Office of Technology Commercialization  
The Convergence Center  
101 Foundry Drive, Suite 2500  
West Lafayette, IN 47906

Phone: (765) 588-3475  
Fax: (765) 463-3486  
Email: [otcip@prf.org](mailto:otcip@prf.org)