

# PLAY TIME



## Soft Play Uses Rapid Prototyping to Provide Small Models of Large Playground Equipment

*"Images are great, but once people see things in real life, they get a better understanding and feel for it."*

— James Swintek, Soft Play

*A complete Soft Play playground is ready for action at a fast food restaurant.*

What kid doesn't love playing on brightly colored playground equipment? Along with those children, however, come parents who want the equipment to be safe and clients who want it produced quickly and accurately. Three distinct customers. Three distinct needs. Soft Play, a leader in the contained-play industry, found a way to accommodate all three.

A subsidiary of PlayPower Inc., Soft Play has created 18,000 playground systems worldwide since its 1984 creation. A large part of its marketing effort involves displaying the playground equipment at trade shows, but traveling with full-sized slides and jungle gyms presents numerous challenges. "Not only is the equipment expensive to ship, but it also takes many hours to assemble, operate and tear down," said James Swintek, Soft Play product manager. "Most shows don't offer that time."

Swintek and his team had been working with a major client for a year developing a unique playground concept and were planning to introduce it at a trade show. "We felt it was worth creating a model of the whole playground," said Swintek. "Images are great, but once people see things in real life, they get a better understanding and feel for it." To create the model, Swintek called on Prototyping Solutions, a Fortus® authorized reseller.

Using a Fortus 3D Production System, Prototyping Solutions created a scale model of the new playground system, including all of the dimensional forms and tubes. "Jim and his team wanted to make sure everything fit together properly," said Prototyping Solutions' Robert Alge. "There is a great complexity to a playground system."

"We sent Prototyping Solutions the files, and the Fortus spit them out in a timely fashion," said Swintek. "As a result, we were able to construct our model and meet our deadlines."

Fortus uses fused deposition modeling (FDM®) technology with thermoplastics to turn an STL file into a 3D part in minutes. Soft Play had used prototyping in the past, but not on a regular basis. "When we're getting ready to spend thousands of dollars on a new playground design, we will pay to have a model made to make sure there are no surprises," said Swintek. In the past, Soft Play had an industrial designer sculpt a piece out of foam or clay. "Prototyping enables us to make sure the models are correct before we pay for a mold or commit several days of a designer's time to create that mold," Swintek added. "Parts have to be in proper scale, size and dimension so it all works. Otherwise, we run into trouble."

For the playground model, Prototyping Solutions used ABS material. The pieces were finished with a primer and some minor sanding before they were painted in the bright, playful colors of Soft Play playground equipment.

But playgrounds aren't all fun and games. Safety requirements from the American Society for Testing Materials dictate that playground equipment must be stronger than a house. "We've seen occasions following a natural disaster, such as a hurricane, earthquake or tornado, in which a building has collapsed on the playground, while our equipment has remained intact," said Swintek. "That's how strong and well-built our systems are."

"It's always a balancing act between creating a safe playground and making sure kids can have fun on the equipment," said Swintek, "but we never sacrifice safety. We know what the limitations are." These limitations include tight spaces. "We have to make sure the pieces we develop can get through a standard door," he added. "3D models help to prove that."

Swintek said, "Solid modeling is economical, fast and accurate, so it makes sense for us to outsource that function instead of having one of our employees take several days to make a model."

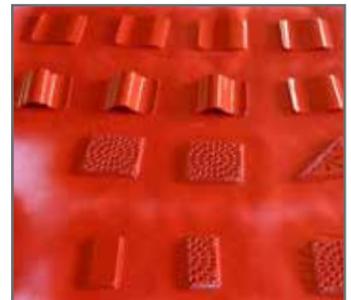
Fun playgrounds for kids. Safe products for parents. Scale models to let customers evaluate the work. Thanks to Prototyping Solutions and its Fortus system, Soft Play met all three requirements.



*A scaled-down model shows the complete contained playground.*



*This curved piece of plastic is the model for a slide.*



*The parts are painted bright colors after they come through the rapid prototyping process.*

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