

LEGO® MRI SCANNER
Program Manual



The Story Behind the LEGO MRI Scanner

In an effort to make magnetic resonance imaging (MRI) scans less scary and more playful for pediatric patients, three separate teams developed their own versions of a LEGO MRI model.

2014

- ▶ The LEGO Group employees Seb Blair and Ian Moore produced a LEGO model MRI machine for a local hospital in the United Kingdom after being approached to help reduce anxiety of younger patients.
- ▶ Pediatric radiologist Dr. Benjamin Taragin, radiologist Erik Ranschaert, and LEGO Certified Professional Dirk Denoyelle created a model that sold globally from 2014 to 2016.



2015

- ▶ At Odense University Hospital in Denmark, children's welfare coordinator Mette Sorang Kjær, radiographer Ulla Jensen, and their team, collaborated with LEGO employee and volunteer Erik Ullerlund Staehr to create a model to help children prepare for MRI scans.

These three teams have provided LEGO MRI models to hundreds of hospitals around the world. In response to growing demand from hospitals, the LEGO Group partnered with the original innovators to create a model exclusively for donation purposes. This is the set currently in circulation.

The Purpose of the LEGO MRI Scanner

MRI scans are an important tool in the clinical care of pediatric patients. However, because the procedure requires the patient to remain completely still for an extended period, it can be challenging for children. To reduce anxiety and minimize movement, anesthesia is often used, but this approach comes with drawbacks, including increased costs and potential health risks.

When preparing for an MRI scan, the LEGO MRI Scanner serves as a valuable tool for children, caregivers, play specialists, and other team members to walk through the procedure in a developmentally appropriate manner. By making the unknown

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The LEGO MRI Scanner is a good tool in preparing children for MRI scans. It has sometimes reduced the amount of children that need an anesthetic as they are willing to undergo the procedure awake after playing with the model.

Play Specialist, University Hospitals of Leicester

known, the model helps reduce stress and anxiety and fosters a sense of safety and understanding.

Children can ask questions and gain confidence before the scan begins, with the goal of reducing the need for anesthesia. Observing how the child responds during play and discussion can help a play specialist make an informed recommendation to the care team about whether anesthesia should be used. Even if anesthesia is necessary, the model can still be used to help children understand what will happen during the MRI, including what their body will experience while they are asleep.



This is a wonderful resource for us as a play team. It can make the difference between the child needing an anesthetic or not.

Play Specialist,
Poole Hospital



Clinical Implementation Toolkit

Along with this program manual and the LEGO MRI Scanner, your clinical team has access to the following educational materials to support integration of the LEGO MRI Scanner into daily clinical care. These resources were designed by the [Weitzman Institute](#) with input from clinical teams successfully using the model in day to day work. The use of these materials are recommended, but not required.

- ▶ **Program Startup Checklist:** This checklist outlines the key steps for successfully integrating the LEGO model into your practice, from identifying a Program Champion to holding routine touchpoints in order to discuss best practices.
- ▶ **Play Log:** The log can be used to track usage of the model, as this data is valuable when sharing information with internal and external stakeholders. Printed and electronic versions are available based on your team's preferences.
- ▶ **Preparing for an MRI scan - Play Specialist Guide:** This resource is for play specialists to use when guiding children and caregivers through the model. It includes images of the model, practical tips, and discussion prompts. While this resource is designed for play specialists, it is applicable to anyone who prepares pediatric patients for MRI scans, such as MRI technologists, nurses and psychologists.
- ▶ **Preparing for an MRI scan - Caregiver Guide:** This resource is intended for caregivers and helps them prepare for what to expect before, during, and after their child's MRI. It can be printed by your clinical team or used as an electronic resource for caregivers.
- ▶ **Educational Videos:** The website includes videos that serve as an additional resource to help guide your team in how to use the model with children and their caregivers.



The LEGO MRI Scanner in Action

The play specialist's role is to facilitate meaningful play that inspires curiosity and exploration to support the child's understanding of the MRI process. When using the LEGO MRI model, staff should balance open-ended play with guided explanation, allowing the child to first explore the model and then connecting their discoveries to the procedure.



To help guide these interactions, refer to the *Preparing for an MRI Scan – Play Specialist Guide*. This resource is designed for play specialists and includes images of the model, scripts, and practical tips for walking children and caregivers through the MRI process in a developmentally appropriate way. The resource is also applicable to anyone who prepares pediatric patients for MRI scans, such as MRI technologists, nurses, and psychologists.

Caring for the LEGO MRI Scanner Model

Proper maintenance of the LEGO MRI Scanner Model helps ensure it can be used safely and effectively with many children over time.

STORING YOUR MODEL

The LEGO model should be stored with other educational materials and tools rather than with general playroom toys. This helps maintain the model's integrity and keeps all pieces together.

CLEANING YOUR MODEL

After each use, clean all surfaces of the LEGO model with your facility-approved disinfectant wipes, following the recommended contact time on the packaging. If a deeper clean is needed, wash by hand with lukewarm water and a mild detergent and then air dry completely. Avoid soaking pieces in liquid cleaners or using high heat to dry them, as this can warp or damage the bricks.

REPLACING PIECES

If your team has received more than one kit, consider storing one as a backup in case a piece goes missing or breaks. If you need a replacement piece, contact [LEGO Customer Service](#) to request a replacement. International support numbers are available; select your country for appropriate contact information.



Frequently Asked Questions

Q: Why doesn't the kit already come assembled?

A: The kit is shipped unassembled to prevent damage in transit. Some teams build the kit together as a fun team building activity, while others assign it to a few LEGO-enthusiastic staff members, delegate it to interns or volunteers, or complete the build alongside patients.

Q: Can I glue the pieces together?

A: It's not recommended to glue the LEGO MRI Scanner pieces. If the model is handled with care and stored appropriately, it should remain intact without the need for adhesives. Since this model is designed for repeated educational use in a hospital or clinical setting, we recommend keeping the pieces unglued to allow for proper cleaning, replacement of parts, and long-term durability.

Q: What age group is this model appropriate for?

A: The LEGO MRI Scanner can be used with a wide range of ages. Older children are often better able to engage in hands-on exploration of the model, while younger children may benefit more from guided demonstration. For safety reasons, it is not recommended for children under the age of 3 due to the choking hazard of small parts.

Q: Can the child bring the model home?

A: No. The LEGO MRI Scanner is intended as a shared educational resource for all patients. To support learning at home, provide the Caregiver Guide to families, which reinforces the information covered during the initial consultation with the play specialist or team member.

Q: Is this model safe for individuals with latex allergies?

A: LEGO bricks are primarily made from acrylonitrile butadiene styrene (ABS) plastic. LEGO does not guarantee that all parts are completely free of natural rubber latex, though latex is not a standard material used in production. If a child has a known latex allergy, follow your facility's standard precautions for potential allergen exposure and monitor for any reactions during play.

