

Lego wheelchair makes turtle mobile in Maryland Zoo

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Image 1. A wild Eastern box turtle at the Maryland Zoo in Baltimore is on the mend and on the move thanks to some clever engineering using Lego bricks. Photo by: Sinclair Miller/Maryland Zoo/TNS

A Maryland Zoo worker brought an injured turtle to the zoo vets. The turtle's shell was broken.

The zoo workers wanted to help. The veterinarians made him a wheelchair from a favorite toy. It is made from Legos!

The wild Eastern box turtle is about the size of a grapefruit. This turtle arrived at the zoo's hospital in July. The turtle had bad breaks along the bottom of his shell. The bottom of the shell is called the plastron. The shell is attached to the turtle's body.

Surgery To Fix Shell

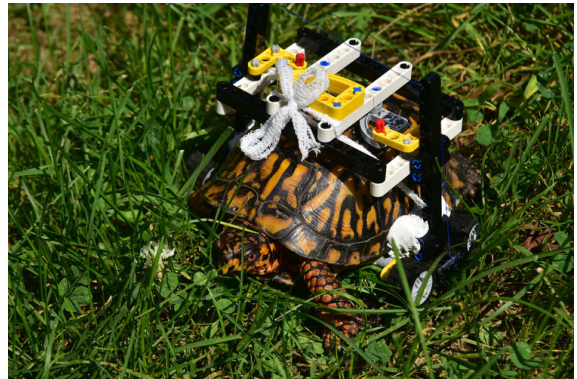
The zoo's veterinarians did surgery to fix his shell. They had to keep the shell still while it healed. The vets kept the shell in place with metal plates, clasps and wire. There was one problem. They were having trouble keeping the turtle's shell off the ground. They needed the shell to heal. The turtle also needed to walk around.

Dr. Ellen Bronson is a vet at the zoo. She is in charge of the zoo's vet team. Dr. Bronson said they tried other materials to build a cart. The cart would keep the turtle's shell off the ground and still allow him to move.

"We tried a few other versions of a cart to keep him elevated off of the ground but they didn't allow him to move as freely and well," Dr. Bronson said. The zoo workers started to think of ways to put wheels on the cart. That is when "the idea of Legos came about," she said.

The zoo workers drew some sketches of turtle-sized wheelchairs. Garrett Fraess is a fourth-year veterinary student working at the zoo. Fraess sent the sketches of a wheelchair to a friend who loves Legos.

The design was a hit. A few weeks after his surgery, the turtle got his wheels.



Lego Frame

A Lego frame surrounds the turtle. The frame is attached to his upper shell with plumber's putty. The putty is very strong and sticky. It keeps the shell still while it is attached to the Lego wheelchair.

If he heals all the way, the reptile will be put back where he was found in Druid Hill Park. The large park is located in Baltimore, Maryland. The Maryland Zoo is in Druid Hill Park. The turtle will not need his wheelchair in the park. It could take up to a year for him to heal, though.

For the last 20 years, the zoo has done an Eastern box turtle watch program in Druid Hill Park. In the park, workers tag and then put the turtles back. They want to understand more about how turtles act in city parks. Since 1996, the zoo has counted and tagged 132 turtles in the park. The injured turtle was tagged in 2000.

Visitors cannot see the turtle while he gets better. Visitors can see other Eastern box turtles in the zoo's Maryland Wilderness area. The area shows all kinds of animals that call Maryland home.