

BOSSA NOVA ROBOTICS

Blazor

by Tom Atwood

Obstacle avoiding speed demon!



Bossa Nova has roots at Carnegie Mellon University, arguably the foremost robotics research and development institution in the U.S. Bossa Nova's latest toy robot raptor appears to be the fastest interactive robot reptile yet. This beast ran around our house at such a pace that our toy poodle, Penny, did not know whether to attack or head for the hills.

Blazor moves forward by turning its wheel-like legs. A speaker roars its mood and its infra red (IR) sensor/emitter on the tip of its nose enables it to be interactive. It detects obstacles like a wall or your foot in search and destroy mode and can quickly pivot and proceed elsewhere. It also detects motion in guard mode, responding with a growl or roar. The transmitter has a button on the upper right dedicated to screeches and growls—potentially much fun for the prankster in you.

You can guide it forward, instantly pivot to the right, and when you want to let it loose, turn on "Search & Destroy Mode" so that it autonomously roams the environment, avoiding obstacles. Steadily holding the turn button down (lower left) will cause the bot to rapidly spin in place, clockwise. Heading it in just the right direction can be a challenge, but it turns and runs so quickly you can point it where you want it to go in very short order.

Each wheel-like leg is actually a spring—part bends inward during a rota-

tion and then pushes outward as the wheel rotates (see photo below). Bossa Nova calls this "Animotion Robotics, a technology that aims to imitate the way an animal's leg tendons store and restore energy as it runs."

CONCLUSION

In our testing, Blazor momentarily transfixed our toy poodle and solidly entertained two kids, 5 and 9, as we explored its behavior—the younger staying with it longer. Blazor shows



Blazor IR controller. Top center button starts Search & Destroy Mode; mid-center, Guard Mode. Clockwise, from upper left: Forward, Screech/Growl, Stop & Turn right.

how obstacle avoidance can be incorporated into a robot toy that will roam your house at the pace of a brisk walk—something unheard of in toys only a few years ago. ©

Links
Bossa Nova Robotics,
www.bnrobotics.com,
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For more information, please see our source guide on page 89.



Ashley Atwood interacts with Blazor.

The leg's bend like a spring, storing and releasing energy.