

Raspberry Pi-powered Bigtrak

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The Raspberry Pi is a small, low-cost computer designed to promote an interest in computing and programming ? but it doesn't have to be straight-laced computing. In fact, in this article we'll be showing you how you can use it to turn a Bigtrak into a robot. That's educational, right?

The Bigtrak is a toy that takes in a list of straightforward commands (Go forwards, turn left, turn right) and then executes them. To make things more interesting we're going to remove the existing circuitry and replace it with a Raspberry Pi, using a small motor driver to safely control the motors in the Bigtrak, which we'll then set up to be controlled via a PlayStation 3 DualShock controller.

Everything required on the software side comes pre- installed on the latest Raspbian OS images, so all we need to translate changes from the controller to the motors is a small Python script that uses the Pygame and RPI.GPIO modules.

[3]

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