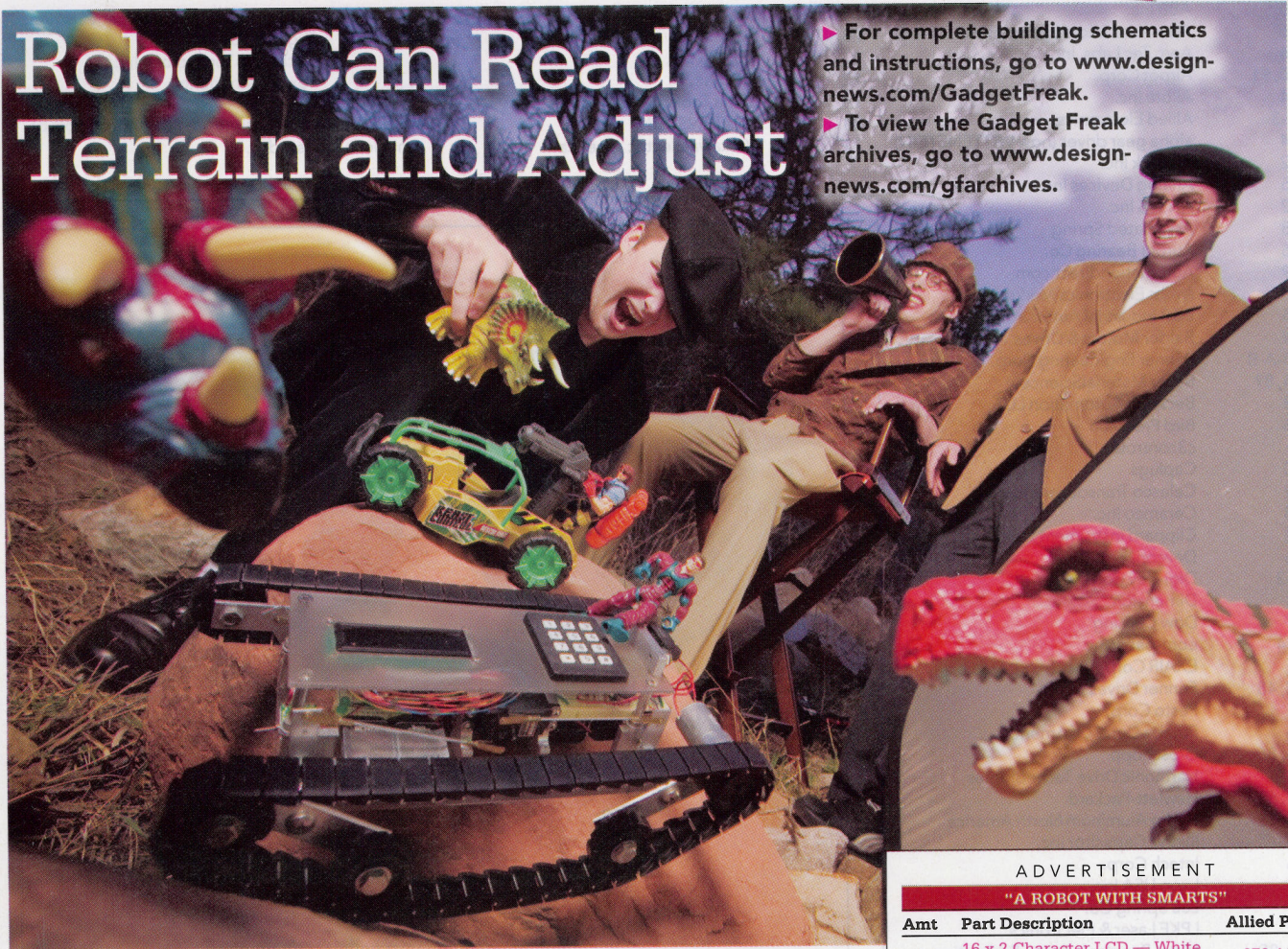




Robot Can Read Terrain and Adjust

► For complete building schematics and instructions, go to www.designnews.com/GadgetFreak.
► To view the Gadget Freak archives, go to www.designnews.com/gfarchives.



Here's every kid's dream — a real robot vehicle that actually reads its terrain and makes adjustments in its movement accordingly. Jared Whelan, Matt Craft and Dave Richards created the "versatile robot" which has a sensor that scans the ground and makes adjustments with reverses and turns. The operator can also remotely select transportation modes. In one mode, the robot's tracks are raised for steep climbs. It comes with an accelerometer that evaluates the robot's position relative to gravity. When the robot detects a steep incline, it will accelerate and reconfigure to a lower center of gravity for maximum traction. Once it regains flat ground, the robot reconfigures to its original position.



Check out the versatile robot in action at www.designnews.com/GadgetFreak

ARE YOU A GADGET FREAK®?

Design News and Allied Electronics would like to send you a check for \$500 to spend on Allied's website at www.alliedelec.com/gadgetfreak or anywhere you please. *Design News* will pay an additional \$100 if you camcord your backyard invention and supply us with the video file. E-mail *Design News* your proposed project (must incorporate electronic components and involve sensing, motion, timing and/or networking elements) to elizabeth.taurasi@reedbusiness.com, along with a description of how it works and a parts' list. If your project is selected, you'll receive a \$500 check from *Design News* and will be featured in an upcoming issue of the magazine with your invention.

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"A ROBOT WITH SMARTS"

Amt	Part Description	Allied Part #
1	16 x 2 Character LCD — White on Black	670-1130
1	1k Ω — 1W Resistors	648-0073
1	5V Voltage Regulator	288-0529
1	12V Voltage Regulator	568-0495
1	0.1 micro F Capacitor	881-0471
1	1,000 micro F Capacitor	507-1084
2	12V Reversible dc Motors	963-0004
1	16F876A	383-0480
1	16F88	383-0496
1	Micro-size Potentiometer	754-5903
1	6V Voltage Regulator	568-0958
1	H Bridge	903-0118
2	4 MHz Oscillator	895-0677
5	9V Snap Connectors	839-0464
1	Proximity Sensor	808-1065

Additional parts required:

For a complete list of Allied and other parts for the versatile robot, go to www.designnews.com/GadgetFreak.

For parts' information, call (800) 433-5700 or go to www.alliedelec.com/gadgetfreak

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