



CASE STUDY

RESCUE ROBOT

APPLICATION OVERVIEW:

Robot using igubal® pillow block bearings wins 2006 RoboCup Junior World Championship

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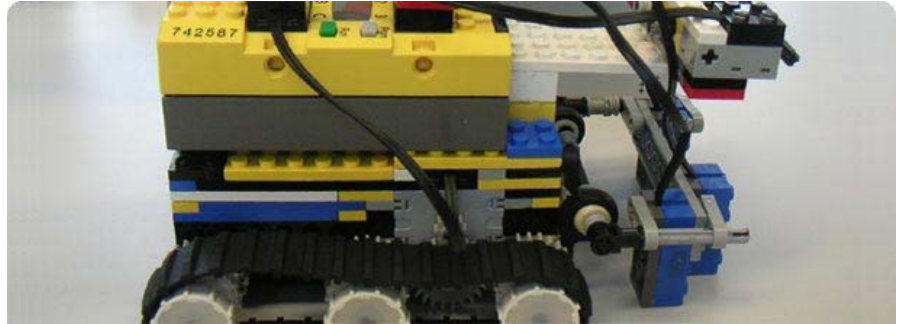
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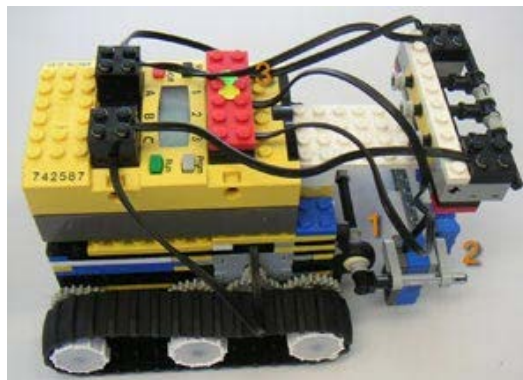
World Champion

A 14-year-old won the RoboCup Junior World Championship 2006 title in the Rescue challenge for his robot design.

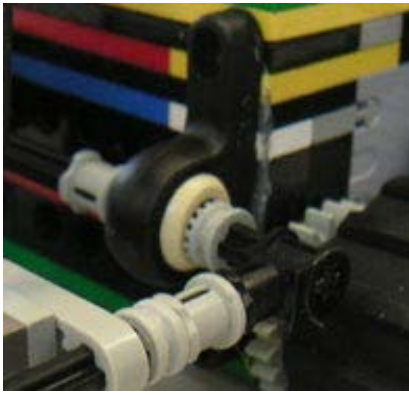
The small, life-saving robot is made mostly from Lego bricks, rubber strips and adhesive, and uses igubal® pillow block bearings to fit out its sensor-equipped shield. Advantages include the fact the plastic, self-aligning bearing elements compensate for misalignment and are lightweight.

In the challenge, the robots move around on a surface the size of a ping-pong table, where they negotiate various obstacles, explore unfamiliar terrain and rescue injured persons. They follow a black line which is broken or blocked at times. The robot had to know

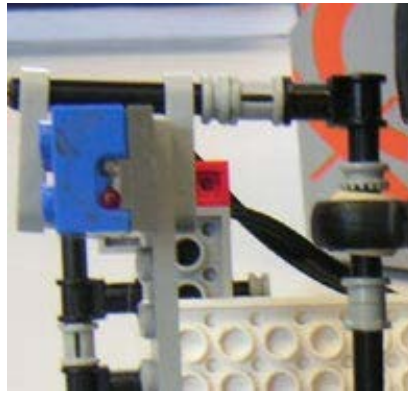
what to do when a line appeared, when the line ended, or when it had to suddenly go up or downhill.



Despite these difficulties, the 14-year-old creator achieved 478 out of 480 points and became the World Champion.



igubal® pillow block bearing KSTM-08



Sensory shield equipped with igubal®



Control unit

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