

**Robots, from page 1**

this and to explore the boundaries of human social skills.”

**SIMULATING HUMANITY**

Scaz’s team is probing a complicated question: What makes ascribe humans qualities to Keepon?

“It’s a blob that moves around,” Scasselati pointed out. But when Keepon starts to bop its “head” to pop music, many intuitively perceive it to be dancing.

“It really challenges you to define the boundaries of what you’re willing to attribute to something,” he said.

For his part, the robotic torso Nico hardly looks human. But since Nico’s function is not to interact with others but rather to simulate a developing child, Scasselati said it is his proportions and body structure that matter.

The way in which humans interact with the world is based in part on their body structure; since, for example, children and adults have proportionally different head sizes and arm lengths, they have different capabilities.

Nico has been used to model, among other

things, the way in which children develop hand-eye coordination and learn about their senses.

Recently, Scasselati and Justin Hart GRD ’12, a lab assistant and teaching assistant, were able to disprove the commonly accepted theory that children can identify the point at which their eyes focus.

Since its inception, humanoid robot development has been based on psychological or cognitive explanations of how humans think, Scasselati said.

“We turned to child development, using models from psychology, to tell us about how we might be able to build things,” he said. “But we’re also able to give back a little bit now, in terms of being able to evaluate these models and see which ones are actually coherent and which ones do what they say they do.”

**WHEN ROBOTS GET SOCIAL**

Pleo the dinosaur is a recently discontinued commercial toy that the team is using to research their biggest project: autism.

With different personalities and behaviors handily programmed onto standard, interchangeable SD memory cards, a fleet of Pleo clones are ideal playmates for chil-

dren, motivating even those with autism to interact with them.

Meanwhile, researchers can step back and focus on a child’s interactions.

“Running an experiment is pretty much always fun,” said Elaine Short ’10, who works at Scasselati’s lab and takes one of his classes, “Intelligent Robotics.”

After documenting interactions between Pleo and non-autistic children, Scasselati’s team models social behaviors to autistic children which their disability prevents them from successfully learning. In particular, his current focus is on prosody, or the intonation of one’s voice.

“It is what you say,” Scasselati said, explaining the concept. “It’s how you say it.”

He and his assistants have been working closely with autistic children at the Yale Child Studies Center Developmental Disabilities Clinic, programming Pleo to hesitate at a river drawn on a play mat and modeling the common “encouragement” prosody for the children.

“We want to see them take that behavior and use it with another child, or with their parents, or with another adult,” he said.

**ALL-STAR SLUGFEST**

**DALE "WAHOO" JR. VERSUS TONY "SMOKE" STEWART**

**SATURDAY NIGHT - MAY 16**

**TICKETS START AT \$25**  
COLLEGE SIX PACK! BUY FIVE TICKETS GET ONE FREE!

Plus PRE-RACE CONCERT BY **MONTGOMERY GENTRY** Presented by **JIM BEAM**

**NASCAR Sprint CUP SERIES ALL-STAR RACE XXV 2009**

**SPEED**

**LOWE'S MOTOR SPEEDWAY CHARLOTTE**  
1960 50 2009  
YEARS OF FIRSTS.

**1-800-455-FANS** [Lowe'sMotorSpeedway.com/college](http://Lowe'sMotorSpeedway.com/college)