

## ANKI DRIVE



*Autonomous Vehicle  
for Gaming*

NATIONAL  
**Robotics**  
WEEK

## ANKI DRIVE



**Position:** Autonomous Vehicle for Gaming

**Coaches:** Boris Sofman, Mark Palatucci & Hanns Tappeiner

**Stats:** Game featuring small robotic cars; uses artificial intelligence (AI) engine running

on an iPhone to control cars; players race against each other or take on the AI

**Hometown:** Anki

**Fun Fact:** Creators met as Ph.D. students at Carnegie Mellon's Robotics Institute; pronounced "AHN-key," name means "to learn by heart" in Japanese

**Learn More:** [anki.com](http://anki.com)

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# BAXTER



*Friendly Assistant  
for Manufacturing*

NATIONAL  
**Robotics**  
WEEK

# BAXTER



**Position:** Friendly Assistant for Manufacturing

**Coach:** Rodney Brooks

**Stats:** An entirely new type of robot that redefines the way robots can be used in manufacturing environments;

performs a variety of repetitive production tasks while safely and intelligently working next to people

**Hometown:** Rethink Robotics

**Fun Fact:** Boasts an electric parallel gripper with interchangeable “fingers” and user-adjustable “fingertips”

**Learn More:** [rethinkrobotics.com](http://rethinkrobotics.com)

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## BIGDOG



*Rough-Terrain Robot  
& Military Pack Mule*

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**Robotics**  
WEEK

## BIGDOG



**Position:** Rough-Terrain  
Robot & Military Pack Mule

**Coach:** Marc Raibert

**Stats:** Dynamic, quadruped  
robot that walks and runs

on rubble, mud, snow, water, and ice; carries heavy loads up to 340 lbs.; works as a pack mule to assist soldiers by carrying gear and supplies

**Hometown:** Boston Dynamics

**Fun Fact:** Powered by a go-cart engine; a noisy robot, some people say it sounds like a swarm of killer bees; original development funded by DARPA

**Learn More:** [bostondynamics.com](http://bostondynamics.com)

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## DA VINCI



*Intuitive Surgical  
Assistant*

NATIONAL  
**Robotics**  
WEEK

## DA VINCI



**Position:** Intuitive Surgical  
Assistant

**Coach:** Gary S. Guthart

**Stats:** Designed for mini-  
mally invasive procedures;

equipped with surgical tools with greater range of motion than the human hand; surgeon console boasts high-definition 3D vision system

**Hometown:** Intuitive Surgical, Inc.

**Fun Fact:** More than 2,500 have been installed worldwide; Johns Hopkins researchers used a da Vinci to play the Operation board game

**Learn More:** [intuitivesurgical.com](http://intuitivesurgical.com)

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EKSO



Wearable Robotic Suit  
& Exoskeleton Trainer

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**Robotics**  
WEEK

EKSO



**Position:** Wearable Robotic Suit  
& Exoskeleton Trainer

**Coaches:** Russ Angold, Nathan  
Harding & Homayoon Kazerooni

**Stats:** Helps people with lower-  
extremity paralysis or weakness  
to stand up and walk; consists

of a computer, lithium batteries, and small motors that  
power the user's legs

**Hometown:** Ekso Bionics

**Fun Fact:** Although Ekso weighs 50 lbs., the user  
doesn't support the weight — it is transferred into the  
ground through the exoskeleton

**Learn More:** [eksobionics.com](http://eksobionics.com)

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# HARVEY



*Agricultural Helper  
& Materials Handler*

NATIONAL  
**Robotics**  
WEEK

# HARVEY



**Position:** Agricultural Helper  
& Materials Handler

**Coaches:** Joe Jones, Charles  
Grinnell & John Kawola

**Stats:** Designed for use in  
nursery and greenhouse facilities; using a laser range  
finder, gyro, boundary sensors, and wheel encoders,  
Harvey autonomously locates, transports, and  
organizes potted plants

**Hometown:** Harvest Automation, Inc.

**Fun Fact:** Early prototypes had rather limited  
electronics; in order to turn one off, engineers had to  
run after Harvey to try to flip a switch!

**Learn More:** [harvestai.com](http://harvestai.com)

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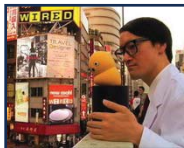
**KEEPON**



*Social Robot & Autism  
Research Helper*

NATIONAL  
**Robotics**  
WEEK

**KEEPON**



**Position:** Social Robot and  
Autism Research Helper

**Coaches:** Hideki Kozima &  
Marek Michalowski

**Stats:** Interacts with people  
and dances when music is playing;  
used to engage with children in  
autism research; My Keepon is a  
toy version of the original research  
platform and available for purchase

**Hometown:** BeatBots

**Fun Fact:** A portion of proceeds  
from My Keepon sales go toward  
furthering autism research; Keepon  
appeared live on NBC's "Today Show"  
in 2009

**Learn More:** [beatbots.net](http://beatbots.net)

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## ROBONAUT (R2)



*Dexterous Humanoid  
Astronaut Assistant*

NATIONAL  
**Robotics**  
WEEK

## ROBONAUT (R2)



**Position:** Dexterous Humanoid  
Astronaut Assistant

**Coach:** Ron Diftler

**Stats:** Humanoid sent to the  
International Space Station to  
help astronauts with various  
tasks; R2 can grasp objects,

flip switches, and high-five crew members after  
successfully performing tasks

**Hometown:** NASA Johnson Space Center and GM

**Fun Fact:** In 2011, became first humanoid in space;  
with its head full of sensors, R2 only has enough  
room for a computer in its belly

**Learn More:** [robonaut.jsc.nasa.gov](http://robonaut.jsc.nasa.gov)

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# ROOMBA



Vacuum Cleaning  
Robot

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**Robotics**  
WEEK

# ROOMBA



**Position:** Vacuum Cleaning Robot

**Coach:** Colin Angle

**Stats:** Picks up pet hair, dust, allergens, and other debris; equipped with a dirt detection system and schedule function;

also boasts cliff sensors and obstacle detection bumper; docks and recharges

**Hometown:** iRobot Corporation

**Fun Fact:** Most popular consumer robot in existence to date; some owners buy outfits to dress up their Roomba; parodied in a skit on "Saturday Night Live"

**Learn More:** [irobot.com](http://irobot.com)

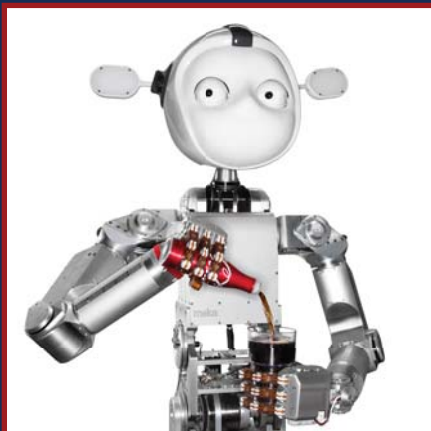
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**SIMON**



*Home Service Robot  
& Companion*

NATIONAL  
**Robotics**  
WEEK

**SIMON**



**Position:** Home Service Robot  
& Companion

**Coach:** Andrea Thomaz

**Stats:** Uses 37 degrees of  
freedom in total; communicates  
using speech, gestures, and eye  
gaze; learns concepts and motor

skills from human demonstrations and interactions

**Hometown:** Socially Intelligent Machines Lab in the  
College of Computing at Georgia Tech

**Fun Fact:** Survived several injuries, including multiple  
broken wrists and his torso controller board bursting  
into flames

**Learn More:** [robotics.gatech.edu](http://robotics.gatech.edu)

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