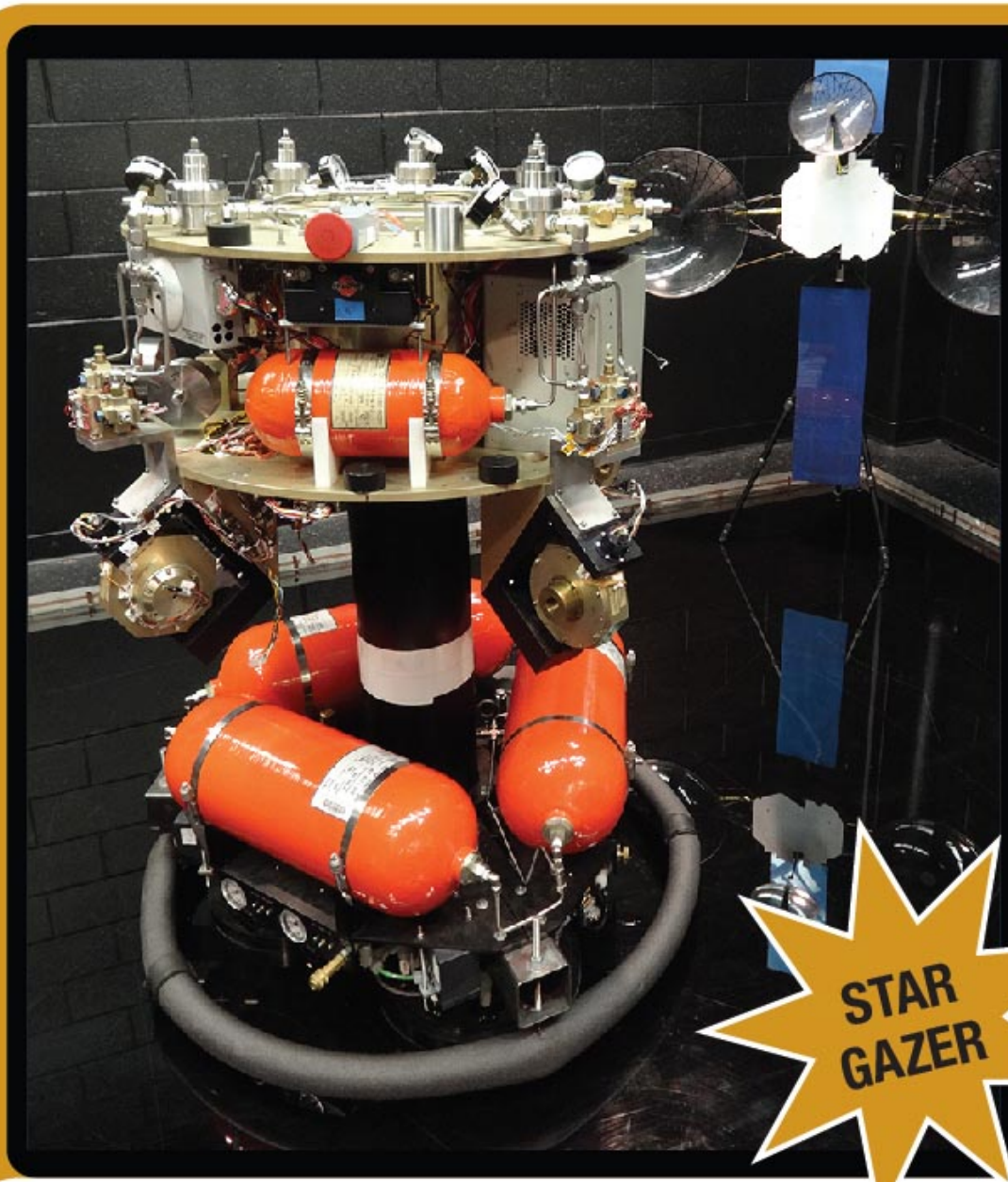
ASTROS

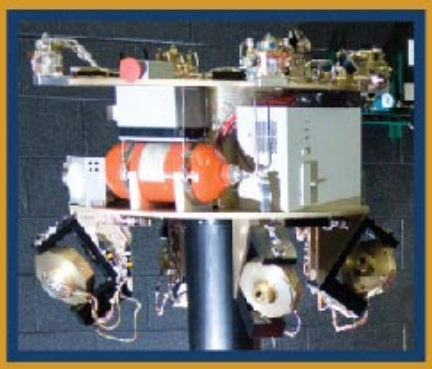


STAR GAZER

Autonomous Tester & Spacecraft Simulator

Georgia Tech

ASTROS



Position: Autonomous Tester & Spacecraft Simulator

Coach: Panagiotis Tsiotras

Stats: Boasts 5-dofs for testing rendezvous and docking scenarios between two spacecrafts in orbit; uses 12 thrusters, 4 variable-speed CMGs, rate gyros, cameras, and two on-board computers to navigate autonomously on a frictionless floor

Hometown: Dynamics and Control Systems Laboratory

Fun Fact: Likes to fight gravity and stare at other people's satellites, but stay away when it fires its thrusters!

To learn more:
robotics.gatech.edu

Georgia Tech

ROBOT DRUMMER

BEST MUSICIAN

Robotic Drumming Prosthesis

Georgia Tech

ROBOT DRUMMER

Position: Robotic Drumming Prosthesis

Coach: Gil Weinberg

Stats: Uses novel anticipation algorithms to foresee human actions; triggers responses with low-latency to achieve sub-second human-robot synchronization for drumming; essentially transforms drummer into a cyborg

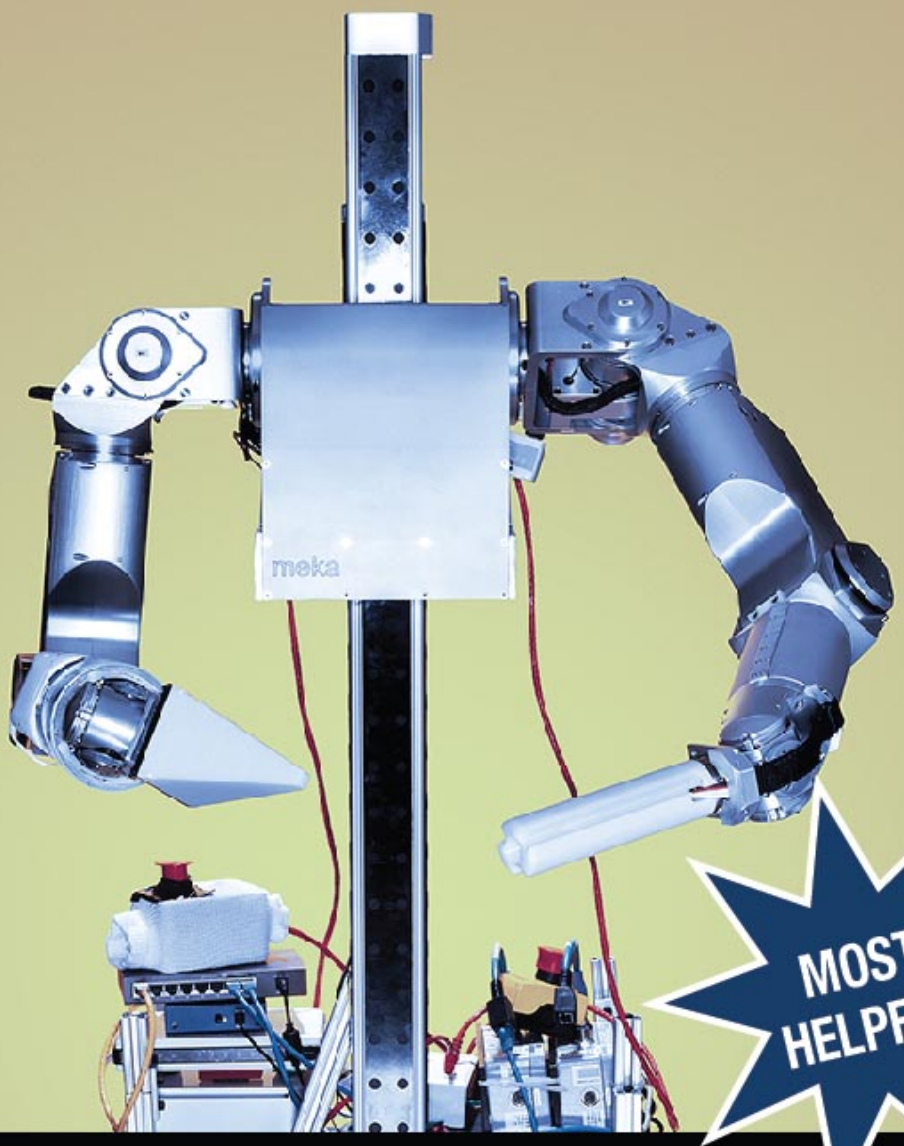
Hometown: Center for Music Technology

Fun Fact: Debuted publicly on March 22 at the Robotic Musicianship Demonstration and Concert at Kennesaw State University as part of the 2014 Atlanta Science Festival

To learn more:
robotics.gatech.edu

Georgia Tech

CODY



MOST HELPFUL

Helpful Personal Assistant

Georgia Tech

CODY

Position: Helpful Personal Assistant

Coach: Charlie Kemp

Stats: New control method works in tandem with compliant robotic joints and whole-arm tactile sensing to intelligently maneuver within clutter; gently makes contact with objects; includes removable tactile sensors made out of stretchable fabric that fully cover arms

Hometown: Healthcare Robotics Lab

Fun Fact: Destined to be an in-home personal assistant, Cody can reach through cinder blocks and dense foliage with its eyes closed!

To learn more:
robotics.gatech.edu

Georgia Tech

CURI

ROOKIE

Personal Service Robot & Companion

Georgia Tech

CURI

Position: Personal Service Robot & Companion

Coach: Andrea Thomaz

Stats: Finds her way with an omnidirectional base and two laser sensors; has series elastic, actuated, 7-degrees of freedom arms that are safe for interaction; an expressive head with a stereo camera pair; and interacts and cooperates with humans to learn new skills

Hometown: Socially Intelligent Machines Lab

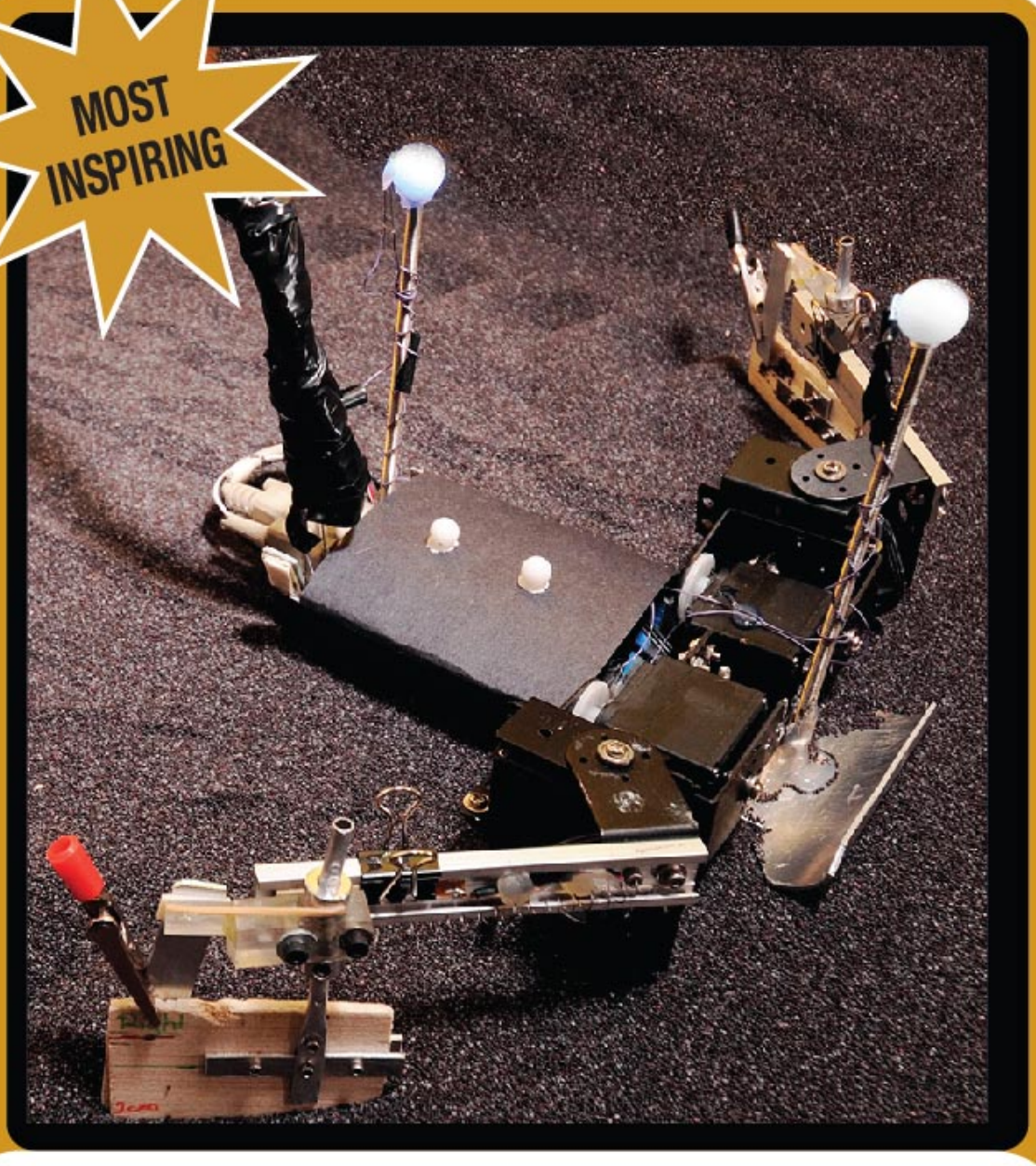
Fun Fact: Captured on video, Curi chose her own name based on submissions from a Twitter contest

To learn more:
robotics.gatech.edu

Georgia Tech

FLIPPERBOT

MOST INSPIRING



Bio-Inspired Terrestrial Navigator

Georgia Tech

FLIPPERBOT

Position: Bio-Inspired Terrestrial Navigator

Coach: Daniel Goldman

Stats: Measures about 19 centimeters in length, weighs about 970 grams, and has two flippers driven by servo motors; like the turtles, has flexible wrists, allowing for variations in movement

Hometown: Complex Rheology And Biomechanics Lab (CRAB Lab)

Fun Fact: Design inspired by observing hatchling loggerhead sea turtles to discover principles governing their locomotion on sand

To learn more:
robotics.gatech.edu

Georgia Tech

PIPER CUB

Autonomous Unmanned Aerial Vehicle (UAV)

Georgia Tech

PIPER CUB

Position: Autonomous UAV

Coaches: Georgia Tech Research Institute (GTRI) Robotics Group Members

Stats: Carries a mission computer, radio modem, sensors, and autopilot for autonomous flight; multiple UAVs can fly in autonomous formation; operators transmit new locations to visit and UAVs negotiate with their teammates to identify the best one to perform the task

Hometown: GTRI

Fun Fact: In June 2013, three Piper Cubs flew together at the same altitude in leader-follower formation over Fort Benning, Ga.

To learn more:
robotics.gatech.edu

Georgia Tech

GOOGLE GLASS

MOST POPULAR

Wearable Technology with OHMD

Georgia Tech

GOOGLE GLASS

Position: Wearable Technology with Optical Head-Mounted Display (OHMD)

Coach: Thad Starner

Stats: Features tiny computer on earpiece; users can access the Internet and capture photos and videos; combines ambient intelligence with augmented reality for a new kind of human-machine interaction; has potential healthcare applications as assistive devices

Hometown: Google, with frequent visits to the Contextual Computing Group

Fun Fact: A pioneer of wearable computing, Starner is a technical lead for Glass; he's worn a computer on his head for 20 years!

To learn more:
robotics.gatech.edu

Georgia Tech

GTMAX

AUTO PILOT

Autonomous Aerial Vehicle System

Georgia Tech

GTMAX

Position: Autonomous Aerial Vehicle System

Coach: Eric N. Johnson

Stats: Research unmanned aerial vehicle (UAV) based on Yamaha RMAX helicopter; adaptive control system allows it to "learn" to fly better on its own; auto-land and auto-takeoff capabilities; 3-time AUVSI Aerial Robotics Competition winner

Hometown: UAV Research Facility (UAVRF)

Fun Fact: Performed the first air launch of a hovering sub-vehicle and the first purely vision-based formation flight; has logged more than 1,000 research test flights since 2001

To learn more:
robotics.gatech.edu

Georgia Tech

DECEPTIONBOT

MOST CRAFTY

Deception Expert & Future Protector

Georgia Tech

DECEPTIONBOT

Position: Deception Expert & Future Protector

Coaches: Ron Arkin & Alan Wagner

Stats: Uses algorithms based on interdependence theory framework and game theoretic notation; recognizes situations that warrant deceptive maneuvers and selects the best deceptive strategy to use

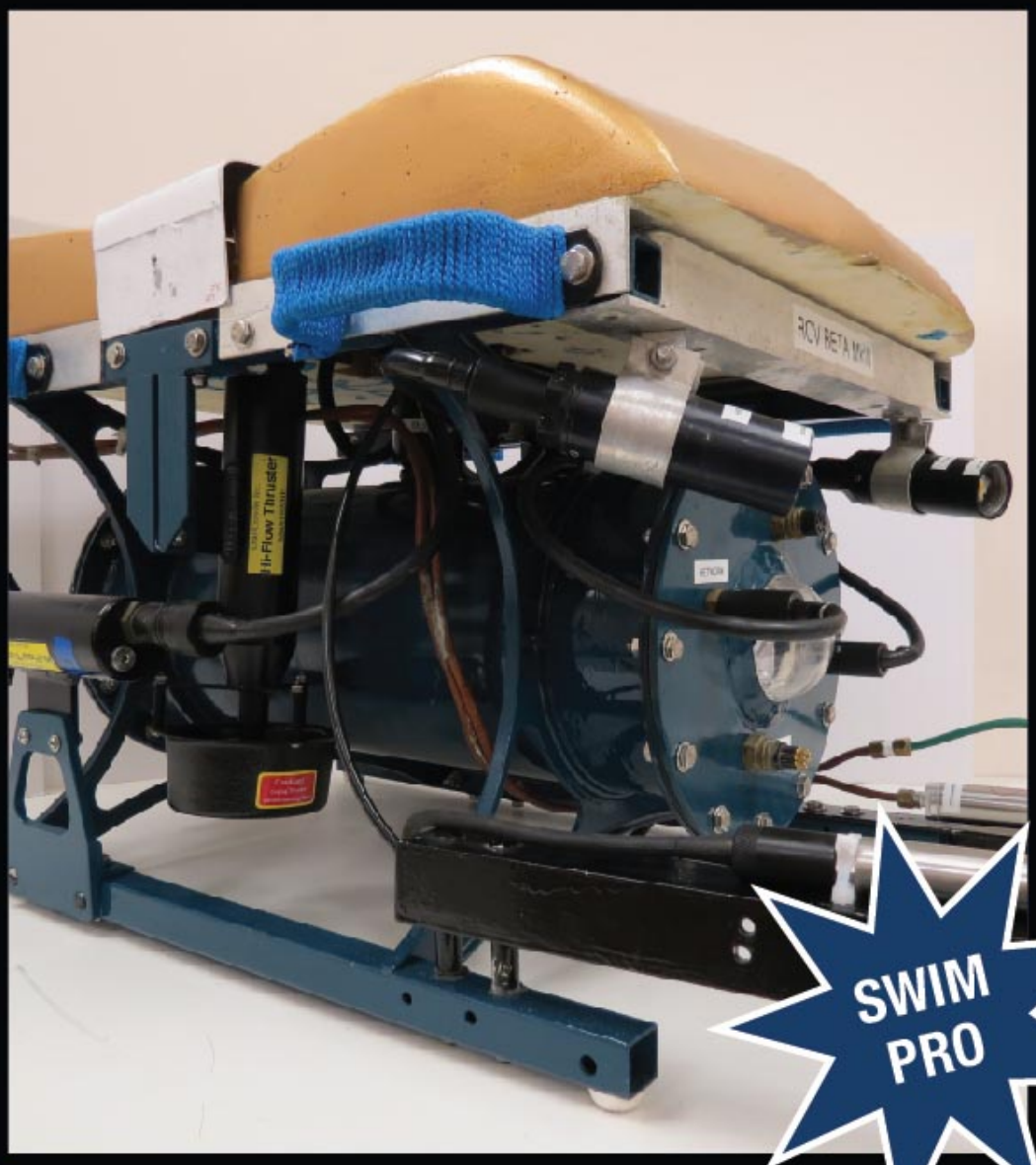
Hometown: Mobile Robot Lab

Fun Fact: Destined to provide assistance on the battlefield or in civilian rescue operations, DeceptionBot has been keeping busy playing a mean game of hide-and-seek in the lab

To learn more:
robotics.gatech.edu

Georgia Tech

ROV BETA MK III

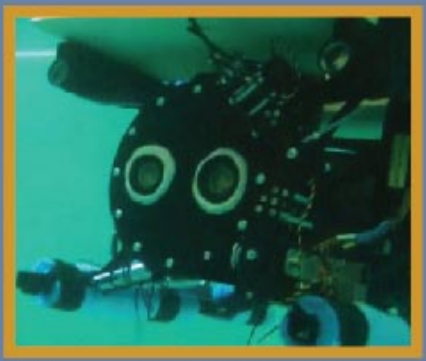


SWIM PRO

Underwater Manipulator

Georgia Tech

ROV BETA MK III



Position: Underwater Manipulator

Coach: Fumin Zhang

Stats: Steel-hulled remote controlled submarine with 100m tether; capable of underwater manipulation tasks such as sampling, opening and closing hatches, and removing damaged riser pipes

Hometown: Lab for Autonomous Mobile Networks (LAMON)

Fun Fact: Visited Hawaii to survey underwater volcanoes and swim with the dolphins

To learn more:
robotics.gatech.edu

Georgia Tech