

G.I.R.L. TECH NEWSLETTER #4

Hello interns and parents, and welcome to newsletter #4! We send these updates every Friday to let you know what's going on in the G.I.R.L. Tech internship program. If you would like to be added to the distribution list, contact Laura Lantz at lantz@cmu.edu.

THIS WEEK IN RECAP



After a week of separate programming and mechanical engineering learning activities, it was time to bring all the G.I.R.L. Tech interns together again to begin focusing on a single goal: teaching their Robotis Bioloid robot arms to play tic-tac-toe. This is a complex project with many steps, and after Monday's work we're off to a really good start! The programming interns used inverse kinematics to control where the robot arm would place its pen and learned how to write a program in Python to play tic-tac-toe. The mechanical engineering interns created a tic-tac-toe board for the robot and experimented with different types of grippers to enable the robot to hold a paint marker.



On Wednesday, April 1st, Marek Michalowski of BeatBots (<http://beatbots.org>) came and introduced us to Keepon. Child development researchers use Keepon to observe and interact with children indirectly. Because of his very simple appearance and behaviour, Keepon is especially helpful for autistic children—he does not overwhelm them and can help them learn social behavior. Our interns had a chance to control Keepon using a Nintendo Wii remote and check out the inner workings that drive his dancing skills!



COMING UP NEXT WEEK

It's time for Spring Break! The G.I.R.L. Tech internship program will not be meeting at our usual Monday/Wednesday after-school times this upcoming week.

On Monday morning, April 6th, from 11:30-12:30, you're invited to join us for a free tour of the Children's Museum, the future site of our robotic painter exhibit. We'll check out many different exhibits including the art studio where children paint, the water play area on the 3rd floor, the slanted perception room, and the hands-on garage, which is where our exhibit will live once it is complete.

Enjoy your time off! If you want to continue familiarizing yourself with the tools we've been using, check out the Python programming language official website at <http://www.python.org/>, or take a look at the website of Robotis, the creators of the kit we used to make our robot arms, at <http://www.robotis.com/zbxe/main>.

GENERAL ANNOUNCEMENTS

We had some great blogs this week, and our latest intern bloggers of the week are Auriel and Samantha! We've featured their posts on the main News page of the G.I.R.L. Tech website—check them out at <http://www.etc.cmu.edu/projects/girl-tech/>. You can read all our interns' blog posts at <http://www.etc.cmu.edu/projects/girl-tech/?q=intern-blogs>.

And interns, your blogs don't have to be text-only—you're also welcome to include images from your digital cameras and camera phones. Feel free to take photos of your G.I.R.L. Tech visits and post them to the website. We would love to showcase your internship work and experiences as presented by you! You can find a whole lot of newly-uploaded internship photos at <http://www.etc.cmu.edu/projects/girl-tech/?q=internships>