## MK-lll-LR Weather Station Part of Groundbreaking Project for Visually Impaired Students in Kenya

## **April 3, 2014**



Carrie Bruce and Brianna Tomlinson pose with the Rainwise digital weather station and in ABLE staff member, Peter Okeyo, at the Thika School.

## The Project:

Research team members, Dr. Bruce Walker, Dr. Carrie Bruce, and Ms. Brianna Tomlinson (HCC PhD student), from Walker's Sonification Lab visited partners in Kenya during Spring Break to continue work on the Mwangaza Project. This project is a collaboration among the Sonification Lab, inABLE, and Kenyatta University in Nairobi to investigate, develop, and deploy accessible STEM education resources for students with vision impairment at schools in Kenya.

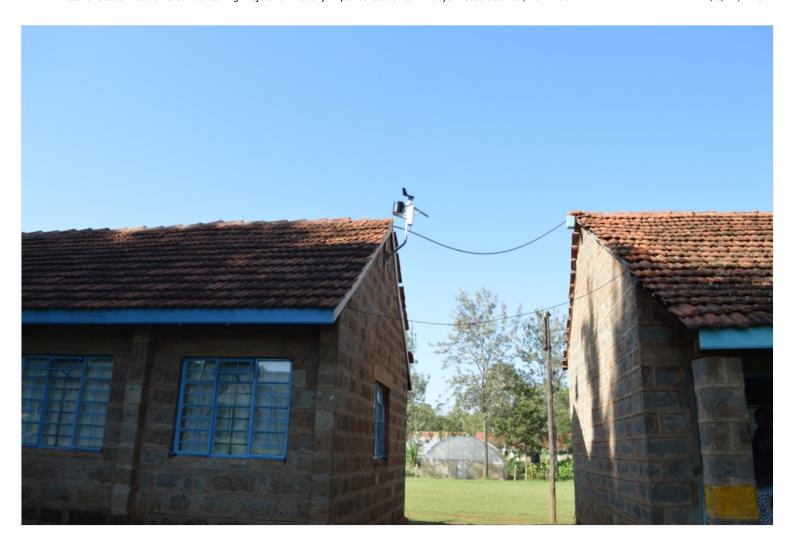
The project began in 2010 as an effort to understand and expand the STEM-related educational impacts of a computer lab and training program that had recently been established at the Thika School for the Blind by inABLE, a non-profit organization dedicated to empowering students with vision impairment in Africa through assistive computer technology. Over the past several years, the Sonification Lab has worked with the computer program staff members and teachers at the Thika School to support technology and STEM learning. Kenyatta University became a formal partner of the project in August 2013 with the signing of a Memorandum of Understanding between Georgia Tech and Kenyatta.

This latest research trip focused on setting up a digital weather station at the Thika School in coordination with Weather Underground and Rainwise, meeting with faculty and students from the Special Needs Education Department at Kenyatta, and discussing STEM and technology issues with teachers and students at the Thika School.

"While we were at the school," Dr. Carrie Brice said, "we spoke with science teachers to discuss the use of the weather station and learn about how they currently teach weather concepts. The discussion was very interesting and we were able to get them to think about how certain weather features could be sonified or have associated sounds. Our next step is to begin work on making the web interface or a custom UI accessible (screen reader compatible and options for sonified graphs and tables). It would be great to connect with your [RainWise and Weather Underground] programmers to see how we might be able to work on improving the accessibility of the web interfaces and getting access to the raw data to determine how to sonify the data."



"Delivery of the RainWise station was delayed due to customs in Kenya. It finally arrived just minutes before our team had to leave for the airport to return to the USA. We were able to unpack it, plug it in and register it, and give the teachers instructions all within a half an hour. They installed it without a hitch after we left. We are very impressed with how compact the staion is and how easy it has been to get it up and running right out of the box."



"This school has around 500 students. There are 7 other schools for visually impared student in Kenya with a total of 3000 students. It is our hope to bring this project and accessability to learning about science through the study of the weather to all the schools."

We at RainWise applaud this effort and are proud to play a part!

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