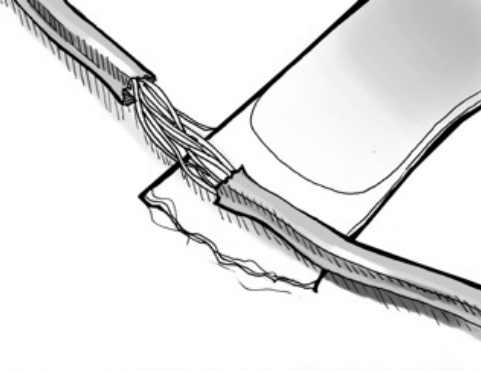


## UC Design Students Team with Duke to Create Innovative Solutions for Rwanda

In cooperation with Duke University, UC design students are creating graphics that explain how to maintain and repair medical equipment currently in use in Rwanda. Residents and workers in the African nation may eventually use these graphics in order to provide better healthcare and create jobs.

In a project that focuses on design for the real world, students from the University of Cincinnati's **internationally ranked** School of Design are seeking solutions that may eventually transform lives and work prospects in Rwanda and other developing nations.

In all, more than 30 digital design students in UC's College of Design, Architecture, Art, and Planning have been developing graphic instructions that will serve workers in Rwanda to learn and implement basic repairs on medical equipment in that country.

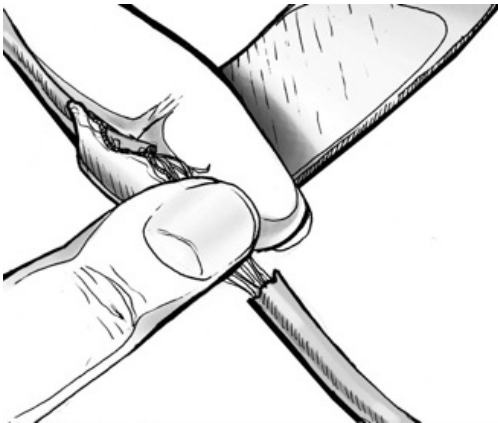


An illustration created by UC student Brett Cushing, part of a series to explain the proper use of electrical tape in repair projects.

With their depictions, the UC students – working in collaboration with a Duke University biomedical engineering team and with input from the IKEA Product Communications in Sweden – are creating and organizing imagery and symbols that explain specific repair, maintenance and troubleshooting procedures for items like a hospital infant warmer, EKG machine, centrifuge, blood–pressure apparatus, stethoscope and more.

"The best part," according to **Andre Murnieks**, visiting assistant professor of design who is leading the courses devoted to the project, "Is that this has real–world significance and may be implemented in some form on a global scale."

He adds, "It's a common problem with donated medical equipment that the end users haven't received instruction on equipment operations, safety, maintenance or repair. Often, the used medical equipment donated to a Third World country isn't provided along with a manual."

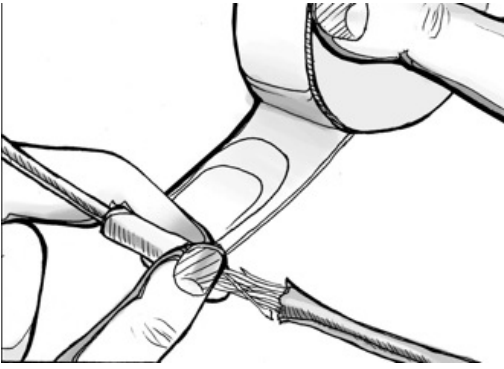


An illustration created by UC student Brett Cushing, part of a series to explain the proper use of electrical tape in repair projects.

Also lending support to the project are Mike Zender, director of UC's School of Design; Yoshiko Burke, associate professor of design; Oscar Fernandez, associate professor of design; Renee Seward, assistant professor of design; and Marnie Meylor, graduate design student. Via telepresence technology, the students' work has been critiqued by designers with IKEA Product Communications department.

UC involvement in the Health Care Equipment for Rwanda project began in spring 2010 and is ongoing. The design project is being conducted in

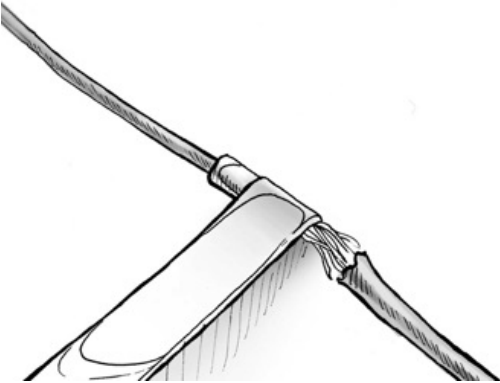
partnership with Duke's Engineering World Health program directed by Robert Malkin.



An illustration created by UC student Brett Cushing, part of a series to explain the proper use of electrical tape in repair projects.

One example of the work being created is that of digital design student Brett Cushing, 22, of Lakewood, Ohio. She illustrated directions for the proper use of electrical tape in repair projects. It might seem like it was a simple assignment but not so, according to Cushing.

She states, "We had to rethink any assumption about culturally derived attitudes or behaviors. An example of that might be that we couldn't assume that red means stop in that culture, or that green means go. Until you're asked to unravel the assumptions you've spent a lifetime acquiring, you don't realize how much you take for granted in your own culture."

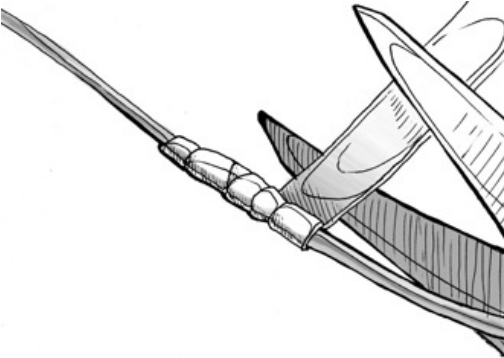


An illustration created by UC student Brett Cushing, part of a series to explain the proper use of electrical tape in repair projects.

Cushing also sought to keep her accompanying language directions as spare as possible. For instance, she said she first employed the word "inventory" to describe the needed tools for making a repair. She later substituted a simpler term.

"Rwanda is a country where English is used, but French is also prominent as well as tribal languages. Simplifying both the design illustrations and wording down to the basics seemed to be a way to gain good results for our clients," she adds.

Overall, Cushing found the project to be so promising – given that it could potentially have a global, humanitarian impact – she says she'd like to volunteer to work on the project this fall if possible: "It was interesting and engaging. I'd like to see it as far along or through to completion as possible."



An illustration created by UC student Brett Cushing, part of a series to explain the proper use of electrical tape in repair projects.

After the current summer design studio is complete, Duke Engineering World Health Program may test these UC designs for use and distribution.

Says Murnieks, "My hope is that we then create a **'co-op' team** to actually test and observe the use of our designs abroad, whether in Rwanda, Honduras or other locale."

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