MIT African teen guest fashions battery, plans windmill (w/ video)

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(Phys.org)—An inventor in his teen years has been on a three-week visit to the Massachusetts Institute of Technology (MIT) as a guest resident. From university officers to labs workers, to bloggers, Americans enjoyed the chance to get to know him better as he got to know his way around university life in Cambridge, Massachusetts. He is the youngest invite ever to MIT's Visiting Practitioner's Program for international development. A 16-year-old from Sierra Leone, he is a self-taught engineer. He never took any engineering or electronics class, but at 13 figured out how to make a battery suitable enough to power his family home. Kelvin Doe told his interviewers that "I love inventing." Never mind that the things he made have been from bits and pieces found around the house and from electronic parts found in dustbins which he used to head toward after school. That is how he made the first Doe battery

"We have not too much electricity," he said, saying that the lights in his home area come on about once a week. Wanting something better than the erratic power, he scraped and scrapped for materials, to build his device. He used acid, soda, and metal, placed the ingredients in a tin cup, waited for the mixture to dry and wrapped tape around the cup. He repeated this exercise until he was satisfied with a working prototype. His portfolio grew to include a generator, after spotting a rusting voltage stabilizer in a dustbin. He then went looking through the dustbins to find what he needed for the motor, plug, and other components.

He also made his own FM radio transmitter. Adopting a community

name of DJ Focus, he has begun running a home-made FM radio station, with a music mixer, recycled CD player and antenna for his neighborhood to tune in. One of his goals has been to give the community a voice where they could debate issues affecting them. He also tapped his friends to be station reporters and station managers. They have interviewed fans at soccer games and have scheduled requests for DJ services at special events, among other things. The average age of his radio station staff is 12.

The man behind Doe's visit to MIT has been David Sengeh, an MIT doctoral student at the MIT Media Lab, and also from Sierra Leone. Sengeh, who is working on developing the next generation of prosthetic sockets at MIT, advocated for Kelvin Doe to visit the campus.

Sengeh runs a nonprofit group called Innovate Salone, which supports his country's high school students looking to innovate and solve the country's challenges. He first met the teenager at a "Summer Innovation Camp," which is Innovate Salone's three day-event held in Sierra Leone that gathers finalist teams to share inventions. Kelvin Doe's team was showcasing components for their FM radio station. Sengeh put his efforts into bringing the teen over to MIT; he wrote visa letters, and looked for a place for Doe to stay. While Sengeh recognizes that his guest has special talents, he also emphasized that Doe "is not the only young person in Sierra Leone ready to embrace opportunities like this."

He looks forward to seeding experiences for other young minds in Africa who are eager to find their own solutions. In the first year of implementation, Sengeh said that Innovate Salone mentored many secondary students. "Since the launch of Innovate Salone, I have encountered young boys and girls who are pursuing their dreams. One girl has started boiling leaves because she wants to launch a fragrance company. Another young man, who has taken classes on MIT Open Courseware, is making huge strides in creating a robot in his house."

Sengeh takes a serious look at the dynamic of self-help. Africa, including Sierra Leone, he said, has received aid but the real growth in national development will come when Africans design their future, with "a host of young people who can think at any point that here is a problem and here is an opportunity to solve it." As for Doe, the teen said his next invention will be a windmill for people, for their electricity supply.

More information: via Mashable