

# STUDENTS DEVELOP A LIGHT SENSOR TO SAVE ENERGY

BY ANDREW SSENYONGA

**T**wo information and communications technology (ICT) students from St Kizito High School Namugongo in Kira Municipality, Wakiso district, have developed a light sensor to automatically control domestic and commercial electricity usage to save energy.

The device, uses an auto energy saving system controlling lighting through a detector that switches off the lights during day and on when it is dark.

According to Alex Sabaidu, a Senior Five student and the lead developer in the project, the sensor has been found to be 98% effective after being tested on some of the school's lighting systems.

"This system can help eliminate energy wastage and improve comfort by balancing the light provided by the building and the light needed by the occupants. For example, a restaurant may use scene setting to change the ambience from brighter light at lunchtime, to softer and darker in the evening," he explained.

He said this during the launch of the school's Innovation Park and



Alex Tomusange and Alex Sabaidu

celebrations of its 20 years of service in Namugongo recently.

Alex Tomusange, a Senior Two student and a partner in the project, said instead of the traditional uniform lighting, they use photocell sensors to vary the output of lights in areas near windows to those in darker areas away from windows.

"This product also detects the presence and absence of

people, so lights are turned off when a room is unoccupied, thus saving energy. And they are automatically turned on to pre-programmed levels when occupancy is detected," he said. He added that this sensor can also be used to control Closed Circuit Televisions, water pumps and water heaters, among others. Its components include Arduino board, light sensor and relay switch.

Gerald Talya, the ICT teacher at the school, said there has always been concern that students, especially those studying science subjects, cannot create anything yet some have actually made innovations.

"These young secondary school innovators are moving to change the world around them, justifying the saying: 'you are never too young to change the world!'" he said.

Among other innovations that were exhibited at the launch of the park were light writing board, helicopters, agricultural pesticides and fertilisers, the garbage sorting plant that also produces briquettes.

Ezekiel Kazibwe, the headteacher of the school, said they have created more space alongside equipping both the science and computer laboratories.

"The launch of the innovation park is a testimony that the school is shifting from Uganda's theoretical education to instilling practical skills for the development of the country," he said.

He added that Uganda has an urgent need for qualified workers to generate development and growth. This means that the education system needs to become more practically orientated.

## M-FYETI APP to curb d...