



S.4 Students of Uganda Martyrs SS Namugongo exhibit their class projects. PHOTOS/GEOFFREY MUTUMBA

**Solutions.** Ethan Okiror used his past experience as a patient to come up with an automated bin that minimises infections in populated places such as schools and hospitals. Other innovations include water purifying systems, garbage recycling systems, incubators, irrigation systems, among others.

BY JANE NAFULA

On March 7, 2026, the Senior Four students of Uganda Martyrs Secondary School in Namugongo took advantage of the visitation day to showcase their project work. The learners displayed unique innovations aimed at addressing societal problems.

For example Ethan Okiror, used his past experience as a patient to come up with an automated bin that minimises infections in populated places like schools and hospitals.

"Last year when I fell sick, I realised that these people could easily spread diseases and when we were tasked to come up with project work, I decided to focus on an automated bin to find a

## Uganda Martyrs students find solutions to local problems



**Sensors**  
As someone moves closer to the bin, it senses the presence of a person and opens automatically to allow them dispose of waste. Adjacent to Okiror's innovation, Maria Nakyanzi and her group members were showcasing a smart security system.

solution to the problem I saw in hospital," Okiror explained.

As someone moves closer to the bin, it senses the presence of a person and opens automatically to allow them dispose of waste. Adjacent to Okiror's innovation, Maria Nakyanzi and her group members were showcasing a smart security system.

Nakyanzi explained that the system works by placing sensors around the perimeter wall and once a stranger moves closer to the wall, the sensor activates an alarm to inform the occupants of an intruder. This allows them to take precautions and stay safe.

Other innovations included water purifying systems, garbage recycling systems, incubators, irrigation systems, among others.

Mr Samuel Kiwanuka, the school's Geography teacher, who doubles as coordinator for school projects wants rural based schools to be supported to effectively implement the Competence Based Curriculum.

According to Mr Kiwanuka, most of the schools that are trying to fit with in this curriculum are urban and those few schools in the villages that are managed by people who have tried to get education at higher levels and who have



Students exhibiting a simple handmade home projector.

the set of objectives of the curriculum may only be achieved by a few individuals across the country," he says.

He says that although the Ministry of Education and Sports is emphasizing then nurturing of all-round students. Mr Kiwanuka is all praises for the Competence Based Curriculum, is the best but requires smaller numbers of learners and an adequate number of teachers to guide them, for it to be effective.

"It would be too good in an environment where many schools have smaller numbers. But when you look at Uganda as a country, there are a few top schools and every individual is fighting to be in those top schools," he says.

He explains that under the new lower secondary curriculum, project work comes as number 10 on a learners' academic certificate. A learner is required to develop a project idea, based on a theme, which is given by the Uganda National Examination Board (UNEB) for study and examinable purposes.

And he is not a lone, Ms Robinah Ssendijja, a parent whose son developed a diesel cooker was impressed with the creativity of the young minds. "I can see creativity from our young innovators and future job creators," she said.

tried to move to different countries to see how things are done.

"Those other students in the villages, may be disadvantaged and they may not have achieved what the curriculum really calls for. So, at the end of the day,