

Mwaka says the machine can pick explosives in situations where deploying a human being is risky

PHOTO BY AHMAD MUTO

# KYAMBOGO VARSITY GRADUATE MAKES SECURITY ROBOT

BY AHMAD MUTO

**T**he last time I met Lucky Mwaka, about three years ago, he was a mechanical engineering student at Kyambogo University.

He was working on the project of making a robot that can detect bombs and act as a security spy. That plan has not changed even after he graduated. He is now working on the second and upgraded prototype.

Like the first prototype, he still used plastic to build it and sprayed it with golden colour. He also used screws to assemble it.

Mwaka controls it using his mobile phone application he says he downloaded from the Google store. The app is programmed to command the robot.

It is controlled via Bluetooth to do back and forth

movements — to pick and drop objects using its arm.

Unlike the previous one, the new one has a camera. Mwaka also plans to modify the robot to do more tasks other than just picking and dropping items. Can it detect bombs yet? No. Mwaka says he is still working on that aspect.

He redesigned the arm of the first prototype that is supposed to pick items (bomb) because it was not able to move high up and turn left and right. The new arm carries about 1.5kg unlike the last one that could only manage half a kilogramme.

However, Mwaka says if he changes the arm from plastic to metal, it will carry even 5kg. The robot can move for a distance of about 16 metres, depending on the Bluetooth strength.

## TARGET MARKET

According to Mwaka, he has his eyes on the Police and the army, who may need it to carry

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out different missions.

He says he has made efforts to get to the authorities with the second prototype but they told him they could not fund the project. When he tried the American Embassy, they asked him to write a letter that has never been replied.

Unlike the first prototype, this



Mwaka demonstrating how his robot works

one also has a provision for water with a water tank at the back for extinguishing fire. “It can also carry water for

extinguishing fire. I am yet to connect the tank,” he says. Mwaka adds that this is the last prototype except he will

use metallic parts to replace the plastic ones which are not strong and can easily burn in firefighting.