

Turn Life Insurance Into Cash

Ad Learn How You Can Help Cover Medical Bills Or Pay Off Debt

Coventry Direct

Learn more

ⓘ ×

[About](#) [Advertise](#) [Contact](#) [Privacy policy](#)

THE EXCHANGE

Africa's Investment Gateway

[HOME](#) [BANKING](#) [INDUSTRY AND TRADE](#) [INVESTING](#) [MONEY DEALS](#) [STOCK MARKETS](#) [TECH & BIZ](#) [BY COUNTRY](#) [VIDEO](#) [OPINION](#) [Q](#)

Home >

How use of Haptic technology won Aga Khan student \$5000

Aga Khan Academy student uses haptic technology to help the visually impaired

by [Kimani Chege](#) — September 10, 2019 in [Business](#), [Kenya](#)

0



 Share on Facebook

 Share on LinkedIn

 G+









A Kenyan student has achieved international recognition for his innovative work which uses technology to help visually impaired individuals run a more comfortable life and on which he has received a cash reward to extend his business.

Raphael Mwachiti, a student at the Aga Khan Academy Mombasa, has won the Ryerson Sandbox Basecamp prize based in Canada for his innovation to assist visually impaired people, awarding him a grant of \$5000 Canadian Dollars and specialist professional advice to help advance his start-up.

Ryerson University, located in Toronto, Canada, runs an intensive boot camp for six weeks every year. Students are invited to submit their solutions to real-life issues, and once they pass a rigorous application process, they are selected to attend the camp. Over the 6-week period, students attend intensive sessions to develop, market and accelerate their business ideas. Ryerson is providing 12 fellowships over three years for Academies students and faculty to attend the Sandbox Basecamp.

The collaboration came about in 2017 following a visit by Mohamed Lachemi, president and vice-chancellor of Ryerson University, to the Aga Khan Academy Hyderabad. The 2019 Basecamp had 27 students, some working in pairs and others working alone. There were 19 projects in total with three winners.

The Aga Khan Academy Mombasa, a programme of the Aga Khan Development Network, is the first of a network of 18 planned academies to be established across Africa, Europe, South and Central Asia, and the Middle East. Each is designed to provide a world-class education to exceptional students who possess strong leadership potential.

Raphael founded Ultramobility, a business that focuses on improving the lives of visually impaired people. Whilst participating in community service, Raphael noted that visually impaired people sometimes struggled with day-to-day living; the white cane that is traditionally used only assists people in telling them where the hazards are when the cane has already come across the hazard, and not before. Raphael began researching the subject and found that of the millions of visually impaired people worldwide, 90% resided in developing countries.

Furthermore, only 10% are able to work and contribute to the economy. Raphael created a solution that uses technology to detect objects within eight meters of the user. Once the object is detected, the device uses haptic feedback, or vibrations, as well as audio feedback to alert the user.

During his time at the Sandbox Basecamp, Raphael was able to learn how to succinctly pitch his business to different audiences, how to use different marketing channels and how to formulate a long-term strategy for his business. Students attending the camp were also taught about the legal and financial aspects of running a business as well as how to analyse market trends. Global companies such as Google and Facebook invited the students to their offices to learn more about their business model and what makes them successful.

Ultramobility improves the quality of life directly in the community where Raphael lives, a fact that made his project stand out. Raphael has cultivated relationships in this community and built a team of advisors who he says are “always willing to help when I get stuck”. It was also the price point and accessibility of the device that set Raphael’s product apart.

Raphael received \$5,000 CAD for winning, as well as access to a law firm to help with incorporating his company and patenting his concept. Winners can use their prize money as they wish, and Raphael intends to use the share to create more units of his device for customer testing and feedback. He hopes to continue to build relationships with different organisations whilst finding a sustainable method of mass-producing his device. Raphael was thrilled to have won the prize and said, “I am filled with excitement for the adventure ahead of me”.

Read also: [Strathmore University releases state of manufacturing report in Kenya](#)

Facebook Comments

0 Comments

Sort by Oldest ↕

Add a comment...

 Facebook Comments Plugin

Tags: [Aga Khan](#) [Aga Khan Academies](#) [Haptic technology](#) [Kenya](#) [Mombasa](#) [Ultramobility](#)