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RALPH BORLAND IS BUILDING SOME ELECTRONICS INTO WIRE ART SCULPTURES TO CREATE STREET-LEVEL AUTOMATONS

WORDS BERNARD CHIGUVARE

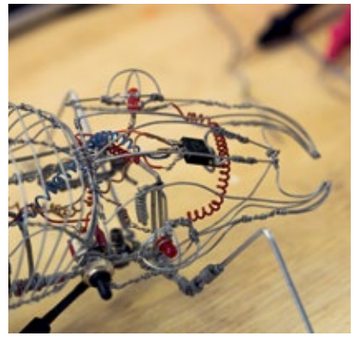
RALPH BORLAND
AFRICAN ROBOTS FOUNDER
africanrobots.net

THE WIRE ARTISTS YOU MIGHT ENCOUNTER AT TRAFFIC LIGHTS ARE BLESSED WITH THE MECHANICAL KNOWLEDGE OF RENDERING THREE-DIMENSIONAL OBJECTS USING ONE-DIMENSIONAL MATERIAL. But, according to Ralph Borland, an artist, designer and researcher based in Cape Town, these skills could be developed much further into the creation of moving robotic sculptures, which then become both electronic art and design.

Borland studied art at the University of Cape Town and did his PhD through an engineering school in Ireland. He also studied interactive telecommunications to better equip himself with the expertise needed to bring wire sculptures to life.

What is the African Robots project?

This project creates new forms of wire art, particularly involving electronic and mechanical parts to create street-level machines. We want to democratise access to technological knowledge and the basic principles of electronics.

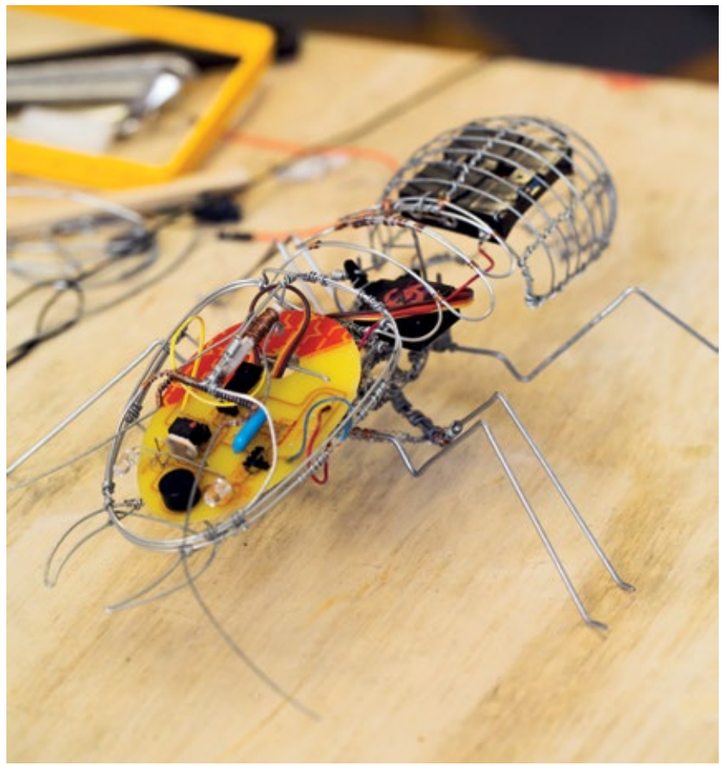


African models include birds, insects and animals. We use galvanised steel fencing wire and other cheap materials from cellphone parts. So far, we're able to make a red-winged starling bird common in SA, and ants, or *majuru* in Shona.

Currently, I am working with five Zimbabweans who have wire-art skills, and I get advice from people working in electronics.

What prompted the idea?

I was inspired to do the African Robots project by seeing what wire artists sold



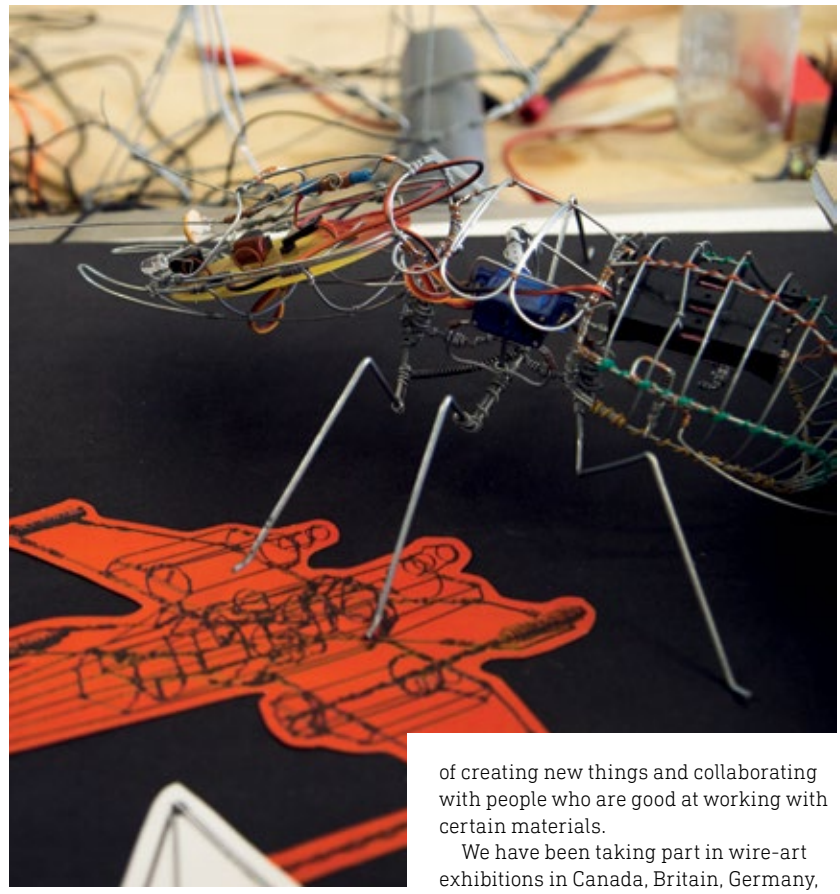
at traffic lights in Cape Town. I liked the way they make the three-dimensional forms out of one-dimensional material. So, I thought about bringing in basic electronics and making things that can move around using cellphone parts. If this works out, then other wire artists will possibly start using the same idea.

Have you created your own robotics?

We have designed what is called the Little Bird circuit board. This was developed in collaboration with Technology Will Save Us, an electronics education company in London. This pre-made circuit board supports a motor, speakers and some lights. We use the board to run workshops, and to put electronic robotic development into the hands of the wire artists more easily. The circuit board is in the shape of an egg, which symbolises something that can hatch. In this case, it's hatching new ideas.

What are you trying to achieve?

I'd like to elevate the status of wire art, because people see it as a form of art that children can do or as curios for tourists, yet it has amazing potential to make really interesting works using cheap material. I get pleasure out of creating new things and collaborating with people who are good at working with certain materials.



We have been taking part in wire-art exhibitions in Canada, Britain, Germany, Zimbabwe and South Africa, and we hope to participate in other countries, too. We are also building an online store for the project so that we can sell our work online.

In the long run, we hope wire artists will be able to sustain themselves by selling the products created within this project.

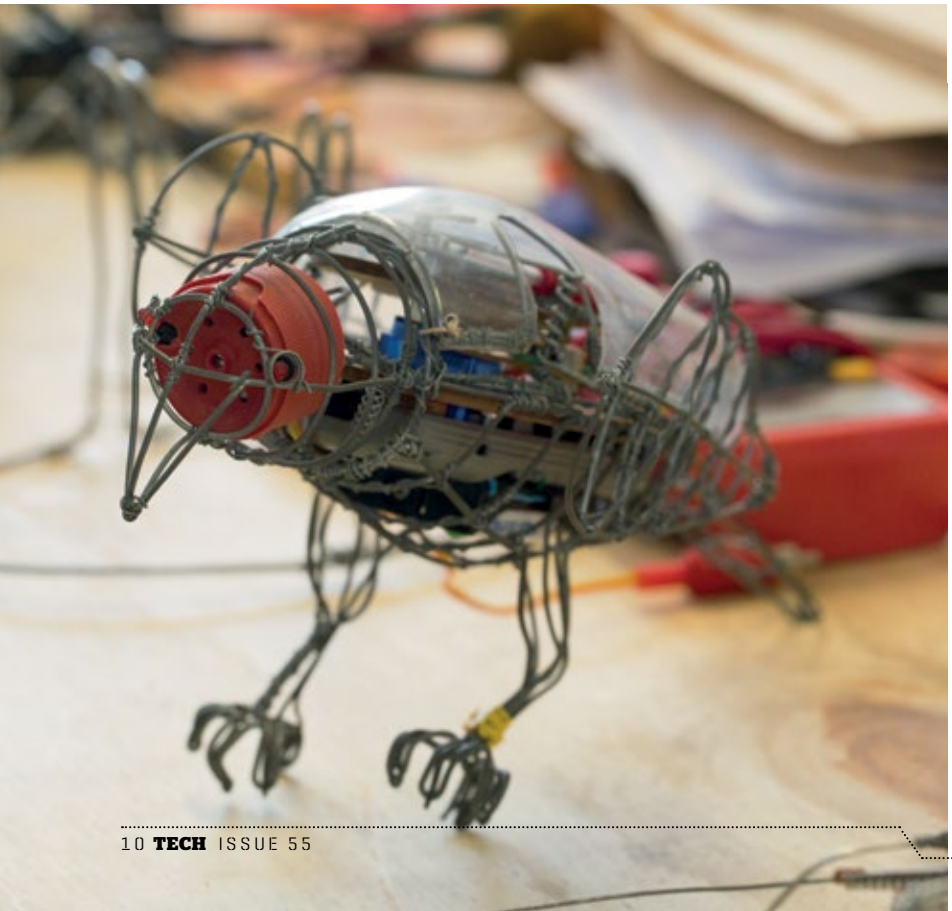
What level of education is required?

There is no formal level of education required. Wire artists are inventive and resourceful people. Most of them apply a practical knowledge of mechanics they may have acquired from relatives, friends and childhood hobbies.

What response are you looking for?

One of our challenges is to present our work as not only art, but also as design. The aim is for the public to see our work as fine-art sculptures, and not simply a commercial product. A monetary value would also be attached to the sculptures so that the artists are well rewarded.

We would like others to value the skills put into the product by the wire artists, who are using affordable materials to produce beautiful works of art. **T**



PHOTOGRAPHY: SAMANTHA PINTO/HMimages.co.za