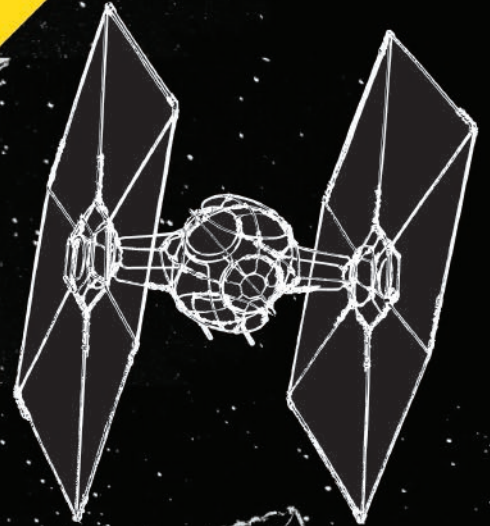


AFRICAN
Robots



VS



SPACE
CRAFT

Instagram flier for the exhibition African Robots/ SPACECRAFT. Cape Town, South Africa, July 2017

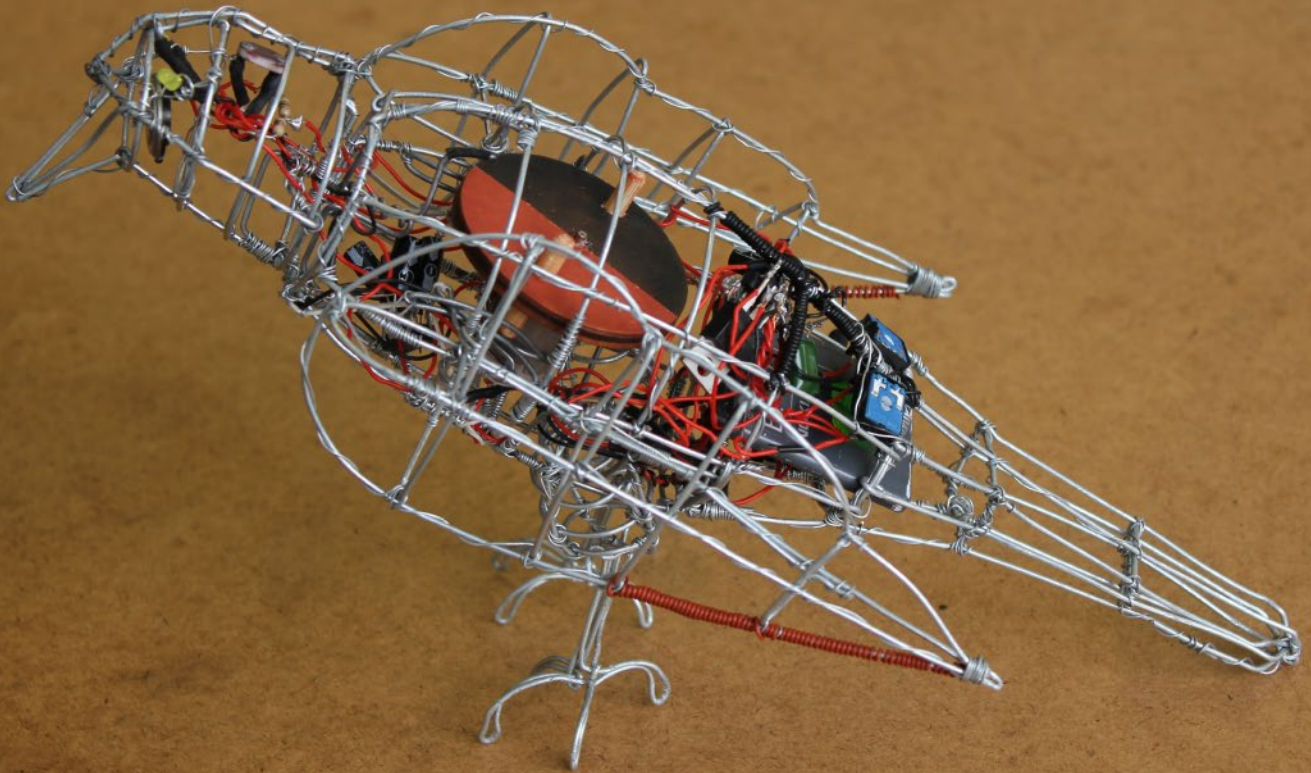
**AFRICAN ROBOTS &
SPACECRAFT:
AN OVERVIEW**

RALPH BORLAND 2017



Crested Barbet, Cape Town, South Africa, 2017

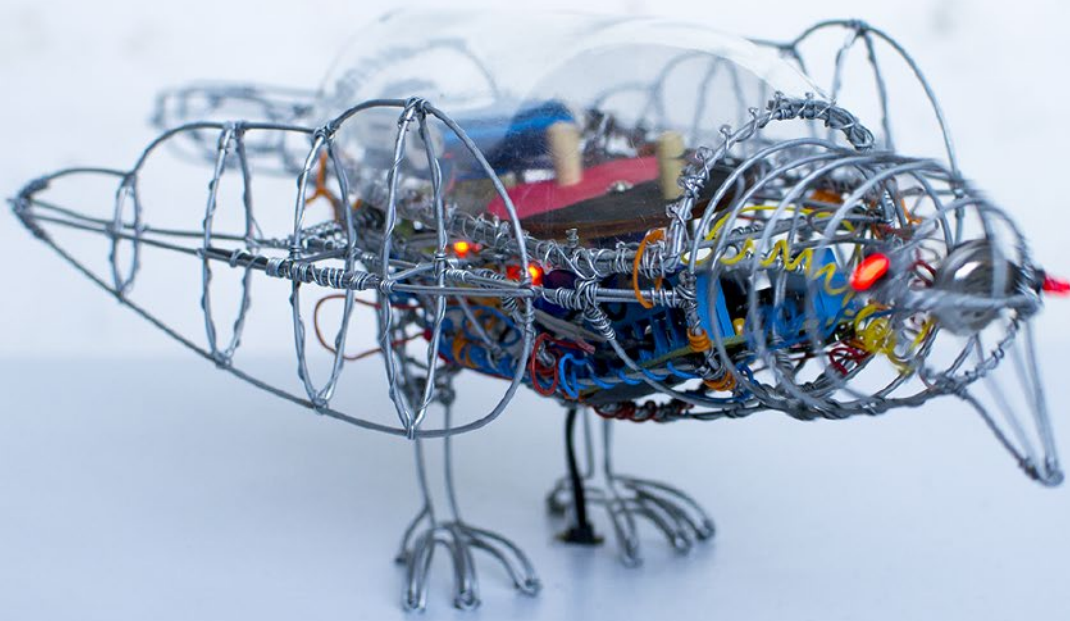
AFRICAN ROBOTS is a project to intervene in street 'wire art' production in Southern Africa (particularly South Africa and Zimbabwe). Here, informal sector artists make largely ornamental goods from galvanised steel fencing wire and other cheap materials, which they sell in the street. African Robots brings DIY electronics knowhow and cheap components to produce interactive and kinetic forms of work; African automatons such as birds, animals and insects.



Starling 1.0, Cape Town, South Africa, 2013

The first prototype to test the idea was produced with the assistance of Henrik Nieratscher in Cape Town, South Africa in 2013. It is based on a common urban bird in South Africa, the red-winged starling. They are often present in the same areas as wire artists, and are intelligent creatures; the mechanical bird is also a common trope in art and literature. The wire artist commissioned for the piece was Dube Chipangura.

This first prototype was an expression of the initial aim of the project, which was to combine networks for informal street cell-phone repair with informal street artists and make use of phone parts for elements of the electronics. When the project was first outlined in 2008, the Nokia was the ubiquitous cell-phone and parts were quite simple. This version uses a cellphone speaker and battery. Since then, cell-phones have become smart phones and more complex, and the focus is less now on specifically cell-phone parts as material. Cheap Chinese-manufactured electronic toys as well as off-the-shelf components have entered the picture.

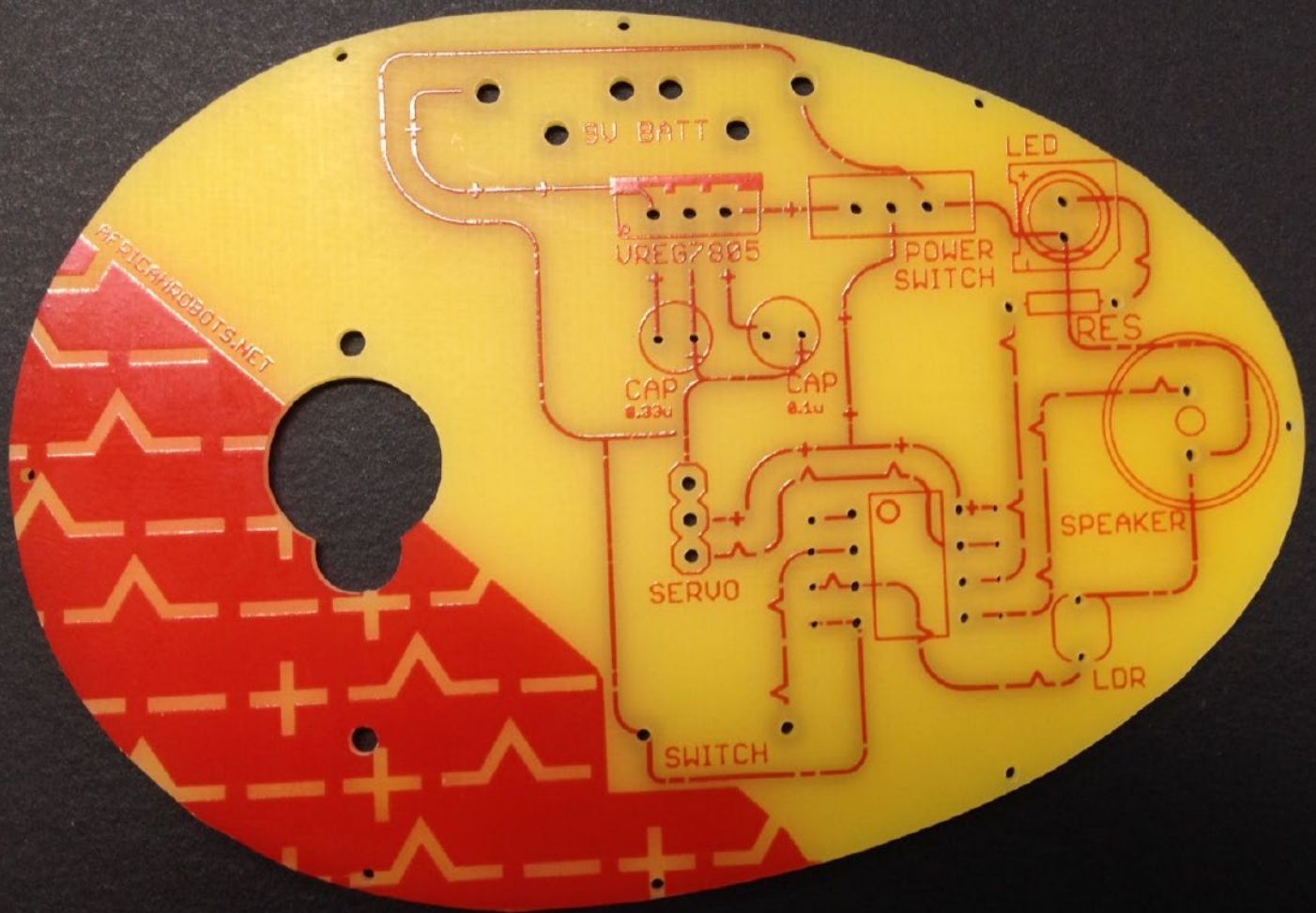


Starling 1.1, Cape Town, South Africa, 2014

Two further iterations of the Starling have followed, 1.1 and 1.2. Starling 1.1 is well travelled, having been exhibited at the Vitra Design Museum in Germany in 2015, and the Toronto International Film Festival digiPlaySpace exhibition in 2016. It uses a hacked imitation iPod playing a recording of a starling's call. Starling 1.1 uses the voice-box of a Chinese toy bird combined with DIY electronics, and has been exhibited at Machines Room, London, and is on it's way to the AKAA convention in Paris in 2017.



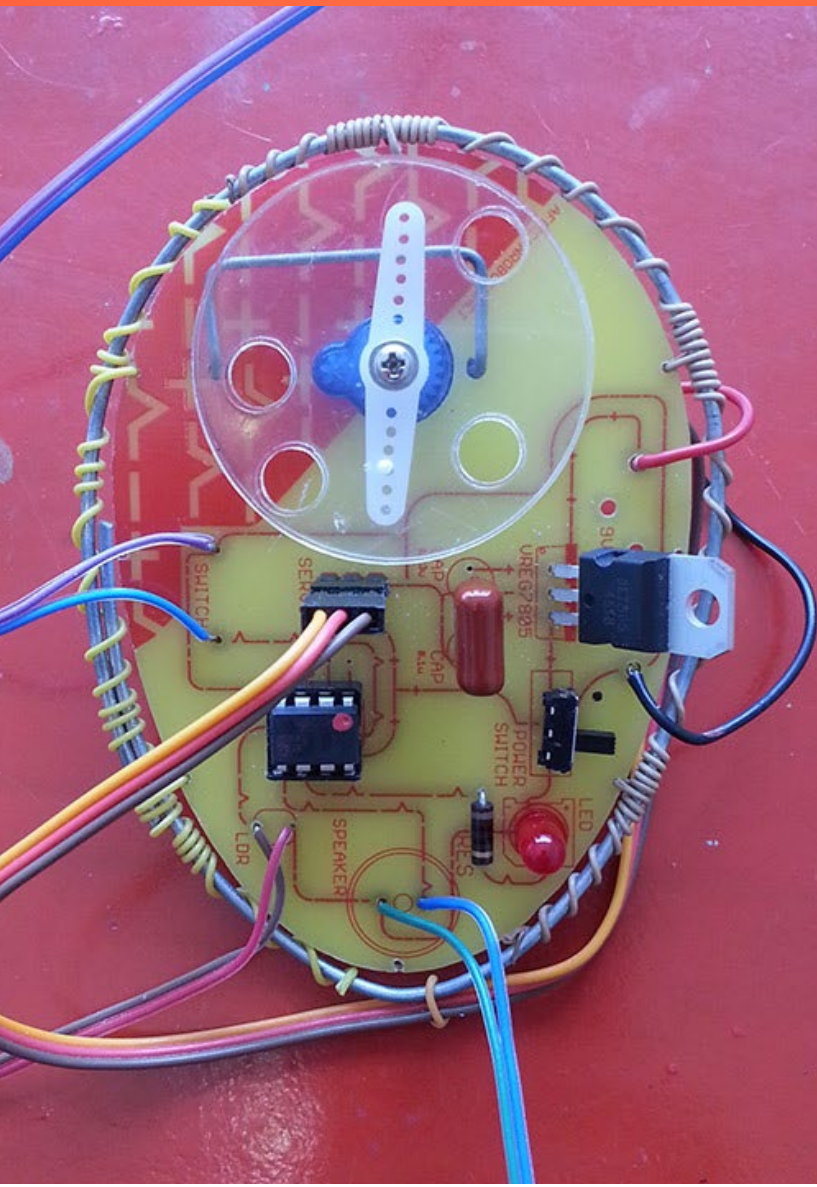
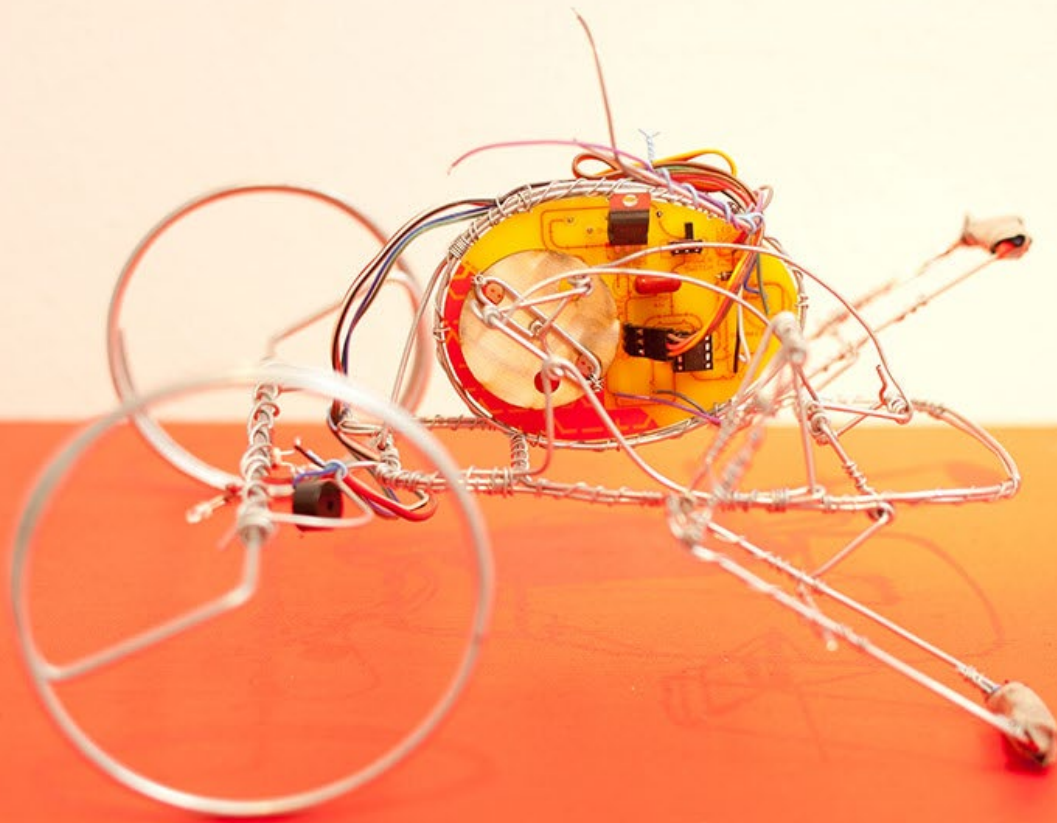
Starling 1.2, Cape Town, South Africa, 2015



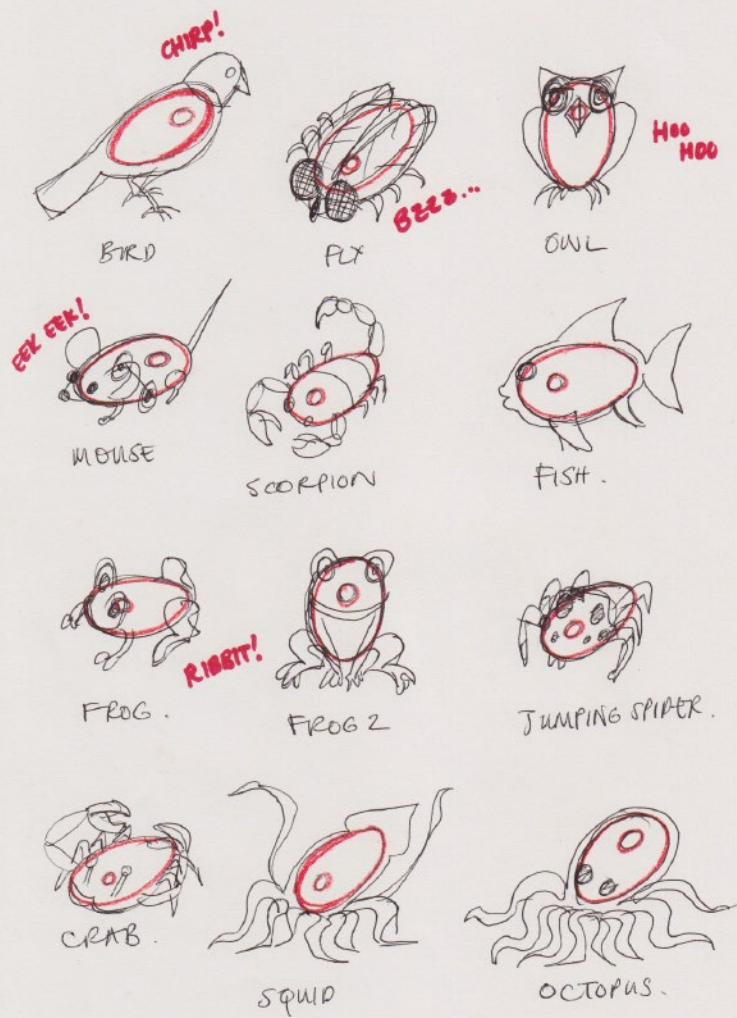
Little Bird, London, UK, 2015

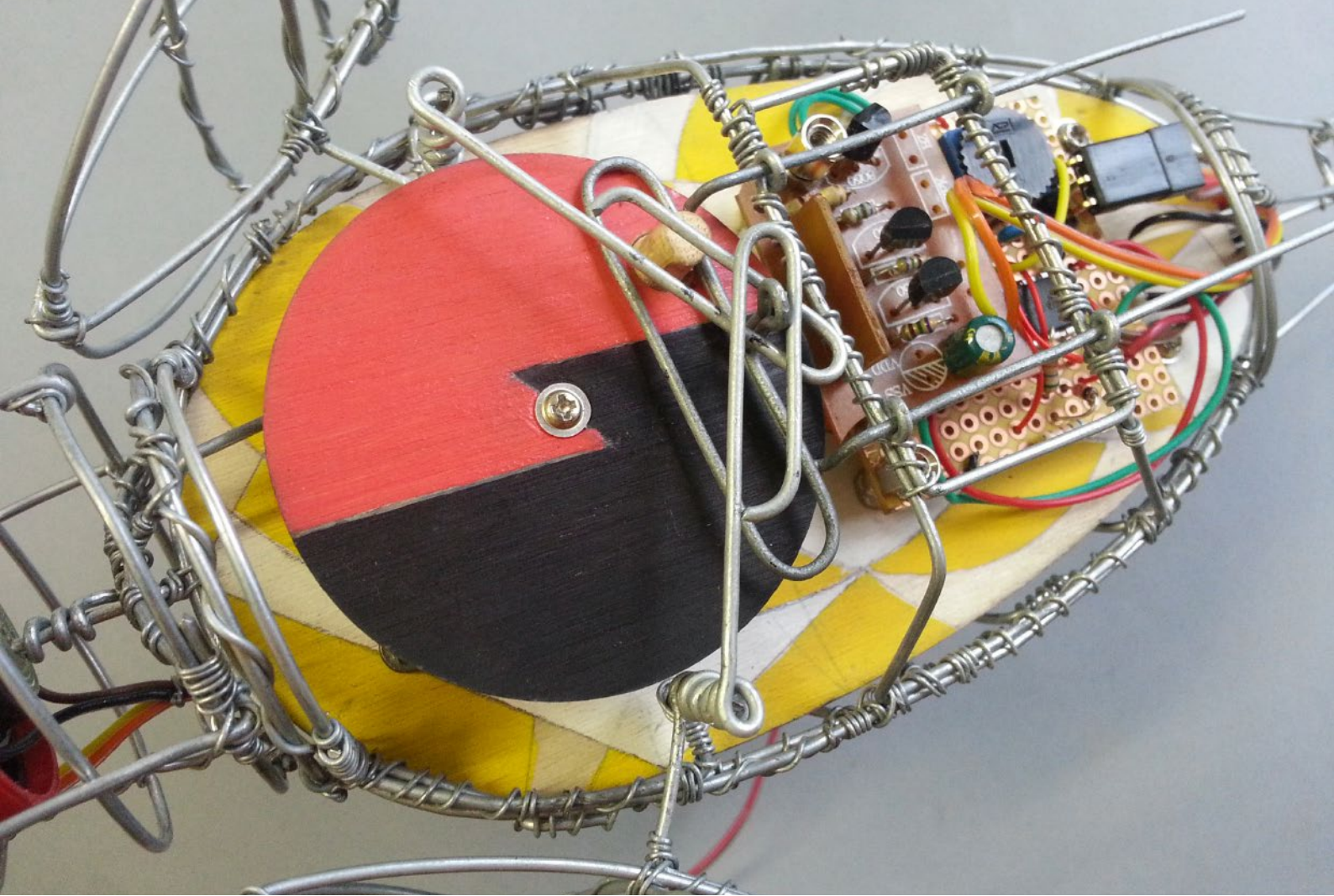
The design of Starling 1.2 led directly to the development of a purpose-made circuit board to make it easier to run workshops, and to experiment with the idea of putting automaton development into the hands of wire artists more easily. Using funding from ZA Connect, a funding scheme from South Africa's National Arts Council and the British Council, African Robots collaborated with the UK firms Technology Will Save Us and Hirsch&Mann to make Little Bird, a multipurpose platform for making wire work automatons.

African Robots is currently in discussions with a South African educational technology firm to develop a similar kit for teaching electronics in schools, using a local vernacular form to increase student interest.



LITTLE BIRD - ARCHETYPES





A 'scotch yoke' mechanism used in Starling 1.2, translating circular to linear movement

One of the intentions of African Robots has been to democratise access to technological knowhow: mechanical forms that have been in use for centuries for example, as well as computational and electronic principles. The 'curriculum' (one of the visions of the project is for an African Robots Academy) includes emphasis on non-European and extra-Western examples of such knowledge: the 12th century Islamic inventor Al-Jazari's automaton designs for example (which include some of the earliest known examples of programmable devices) and fields such as Ethnomathematics, which recognise the use of mathematical principles found in non-maths places (often in craft practices such as weaving).



Baskets made from woven electronic wire by ZenZulu, South Africa



An African Robots workshop in Harare, Zimbabwe in 2015

A number of workshops have been held with wire artists in South Africa and Zimbabwe, and their work exhibited internationally. A variety of approaches have been experimented with, from using hacked toys to store-bought components, to the Little Bird kit platform. The different approaches touch on global flows of ideas and goods - one project saw toys bought at Chinese electronics markets in Sao Paulo made into wire work automatons in Harare, and exhibited in London! Wire artists in Harare quite specifically saw their repurposing of imported toys as a riposte to the reverse that they are accustomed to - their designs being appropriated or substituted by imported goods.



RALPH
BORLAND



LEWIS
KALUZI

One thing the project has been careful to do is to properly credit artists for their work. Street art and craft is often presented as anonymously produced, exacerbating imbalances of power and representation.

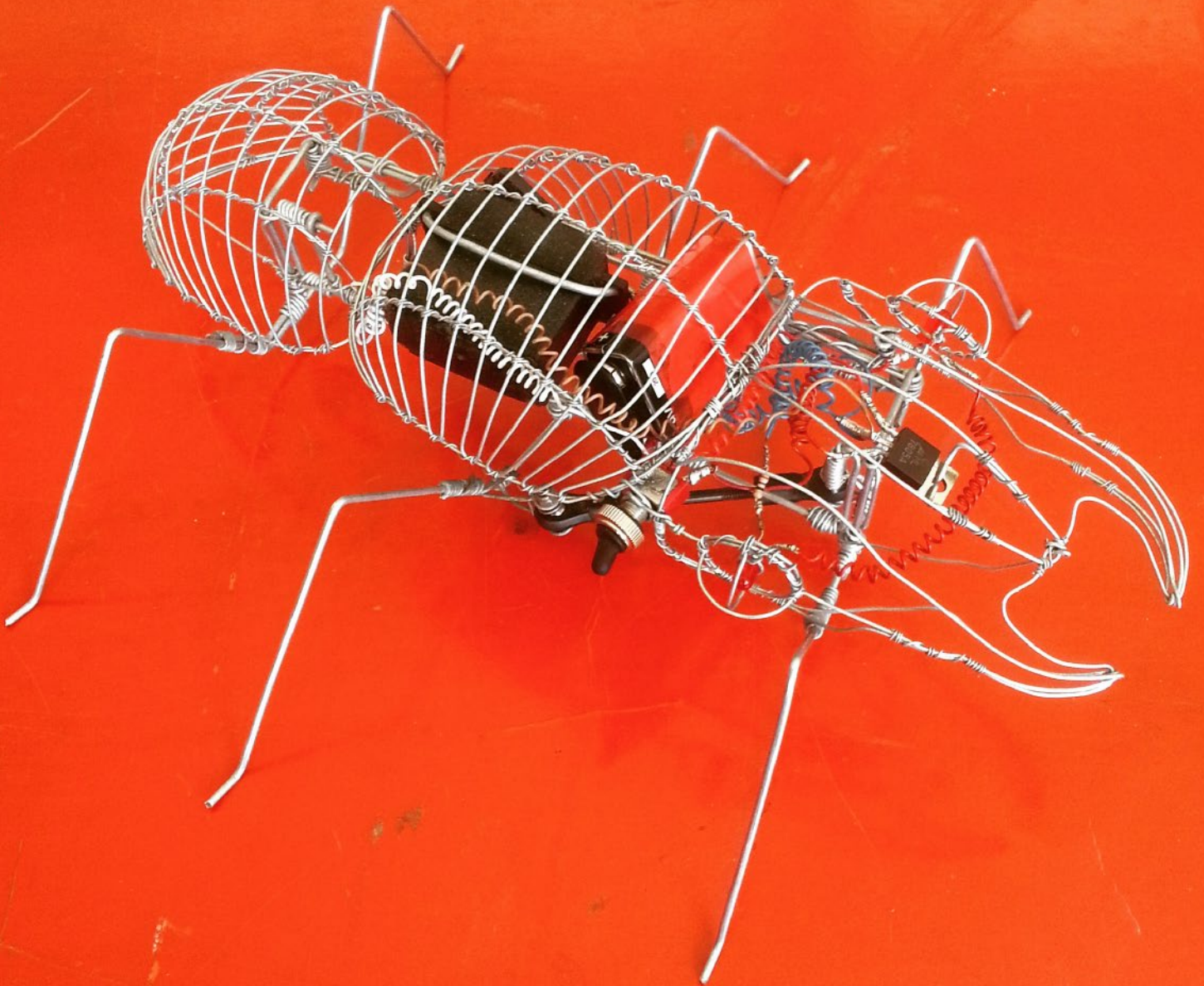
The project is a continual learning process around the working practices and needs of wire artists. In identifying shared interests between the project lead and wire artists - such as reggae and dub music and culture - connections have been formed through growing friendships, while still recognising differentiated responsibilities and facilities.



DUBE
CHIPANGURA



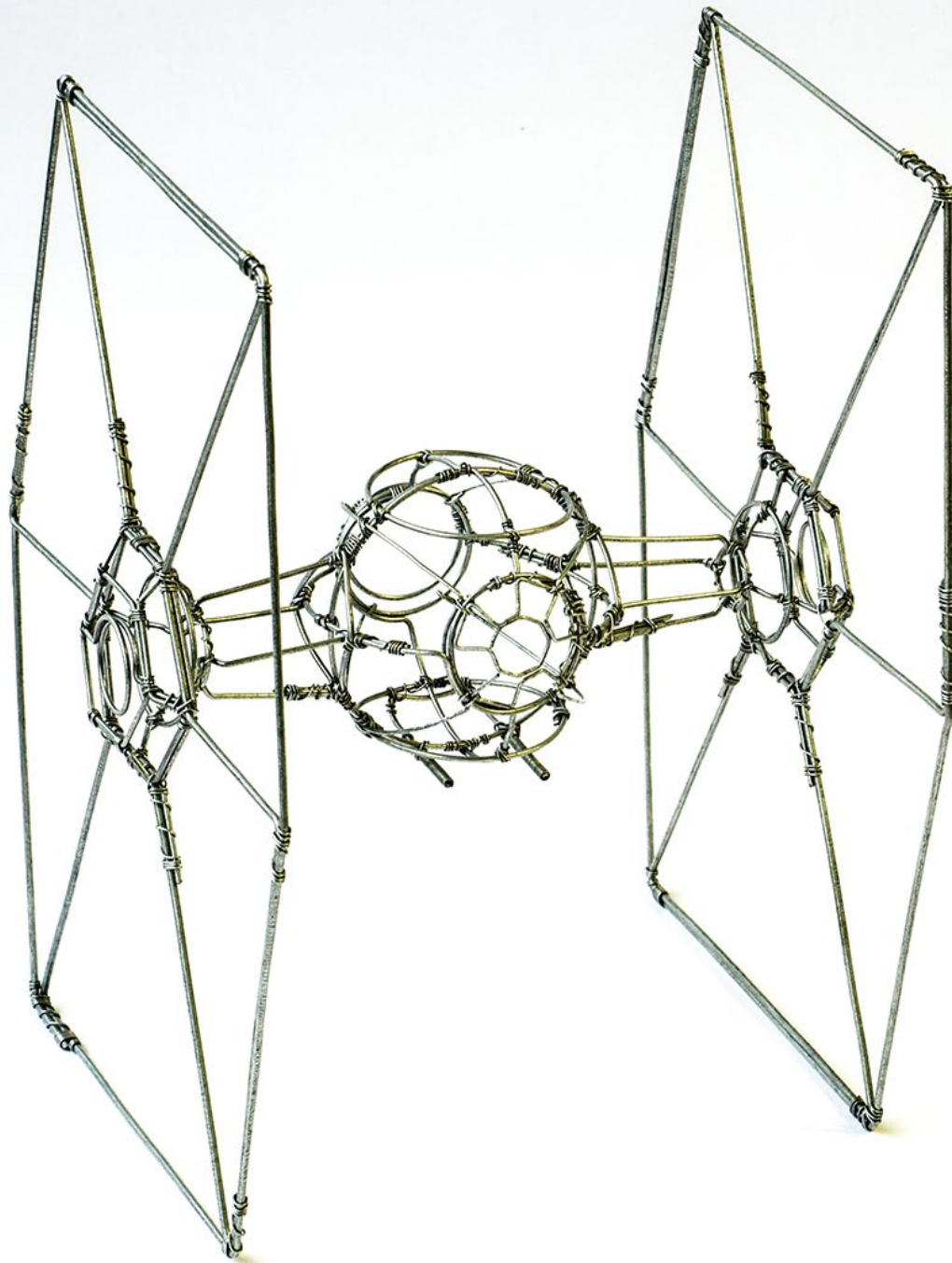
HENRIK
NIERATSCHKER



Ant, Cape Town, South Africa, 2017

One of our recent prototypes for an ant was developed in collaboration with Lewis Kaluzi. He came up with an ingenious walking mechanism, which inspired the insect form for it. We are currently developing a version built around the Little Bird platform.

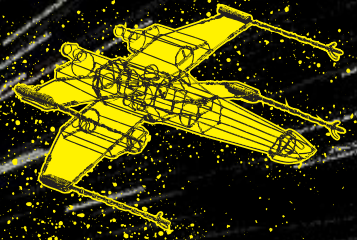
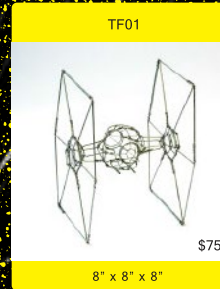
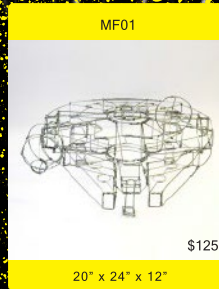
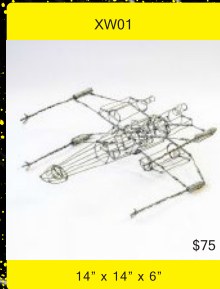
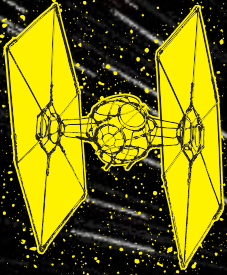
See the Ant in action at: https://www.instagram.com/p/BZA_Laplx_Z/



TF01 SPACECRAFT. Cape Town, South Africa, 2017

SPACECRAFT is a project to create 'wireframe' sculptures of spaceships from popular science fiction that play on the similarities between old school computer 3D graphics and hand-crafted African street wire art. They are intended as a catalytic insertion to existing street craft marketing and sales practice, attracting new audiences to the form and making a contribution to the informal economy.

SPACECRAFT



Ar-B

SPACECRAFT is an intervention into street wire-art culture in South Africa and Zimbabwe, based around the production of wire frame sci-fi spaceships. The first three sculptures in the series are of iconic spaceships from the first Star Wars film series, depicted in a style reminiscent of 'old school' computer 3D. Designs for T-shirts, banners and silk-screen posters are derived from the sculptures.

The sculptures, produced as unlimited multiples, are intended as artworks in their own right and as prototypes for street-level production. In their form they evoke the early days of computer-generated 3D objects, particularly the early Star Wars arcade games in the 1980s, or the images seen on consoles within the Star Wars movies. They play on the intersection between the way computers describe 3D objects, and how three-dimensional objects are described with wire through handcraft.

They play too on the existing practices of street wire artists in making items associated with popular movies, such as Finding Nemo fish or characters from the Cars

movies. Where these items have been popular with the public, more and more wire artists have started to make and sell them. The project plays on the potential for catalytic intervention and viral spread of innovation in the street wire art scene. The spaceships and related merchandise are marketed through art exhibitions and online, while strategising for street level production.

Alongside wire artists selling their original wire works are other vendors selling knock-off merchandise such as stuffed-toy 'minions' from the Despicable Me series, imitation 'spinnies' from the Ice, The extended graphical representation of the SPACECRAFT series borrows from both phenomena, presenting itself as a combination of a knock-off brand, and an original reimagining of and contribution to the Star Wars world.

Star Wars itself is famously an amalgam of influences, from sci-fi and Westerns to Japanese movies, comics and a range of mythological sources. It is also surrounded by fan production of artefacts from the movies, with adherents designing and making droids and robots and other items from the movie's universe.

In its appropriation and reimagining of global pop-cultural items SPACECRAFT recontextualises these images and ideas back to source, following in the subversive mode of Southern sites making and redistributing their own copies or removes of popular media, in an act of 'anthropophagy' – the consumption and creative incorporation of an outside cultural influence.

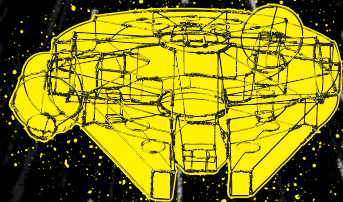
The gesture of making versions for oneself of what one desires using available resources is the origin story of wire art in Africa. Wire artists make their own cars as children in an act of necessity and of observation. The project's narrative frame extends to include this imagining, presenting the sculptures as the products of wandering space hawks depicting the vessels they see in their travels; 'space pirates' perhaps related to the 'Jawa', scrap dealing aliens in Star Wars.

SPACECRAFT is an offshoot of African Robots, a project to catalyse new forms of wire art, particularly involving electronic and mechanical components to create street-level automatons.



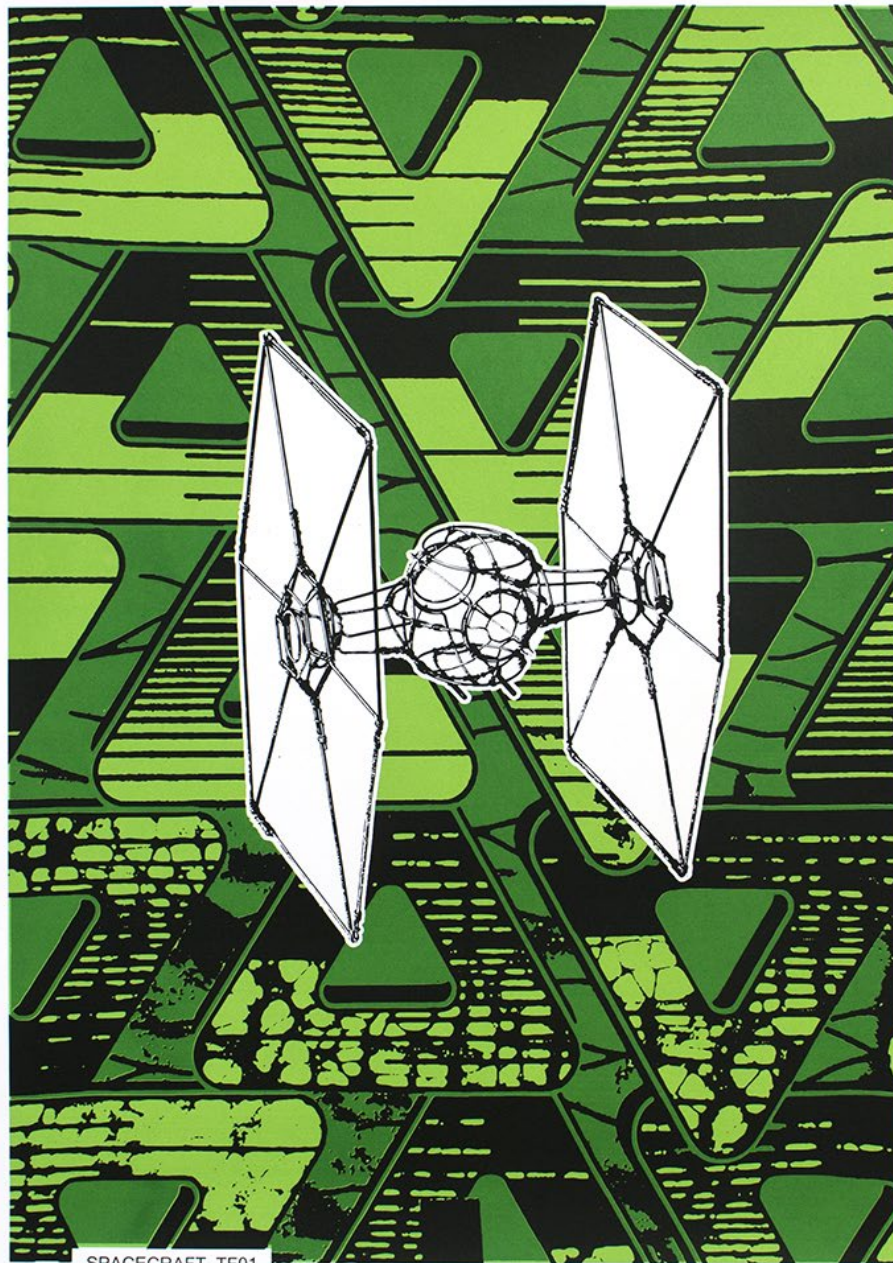
E-I-K

CONTACT: ROBOTS@AFRICANROBOTS.NET



2m x 2m wall vinyl for the conference 'Strategic Narratives of Technology and Africa', MMIT September 2017

In an expanded fictional frame for SPACECRAFT, the wirework spaceship sculptures are imagined as the product of wandering space artists and merchants. This plays on wire art as an observational art form, in which wire artists base their designs on influences around them, such as cars and motorbikes, as well as aeroplanes, animals, insects etc.



1/25

SPACECRAFT TF01

Ralph Berland 2017

Limited edition screenprint produced with Black River Studio, Cape Town, South Africa 2017

The SPACECRAFT project has expanded to include other outputs such as limited-edition fine art screenprints that use sampled wax-print fabric patterns as backdrops, T-shirts and other clothing. This is part of an evolving experiment that draws on interventionist art, product design and speculative (design) fiction for its influences.

For more information about the project, contact us via:

<http://africanrobots.net>

Some coverage of the project is at
<http://africanrobots.net/press>

And videos and images can be seen at
<http://instagram.com/ralphborland>

