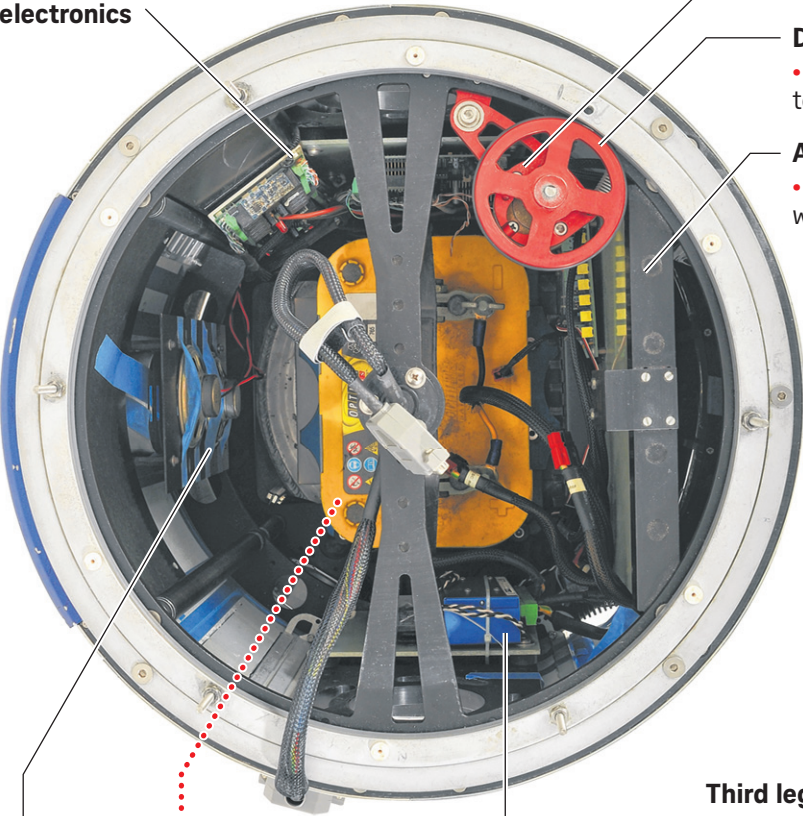


Deconstructing Artoo

Here is the breakdown of Singapore's own replica of the famous astromech droid.

Sound controller electronics



Motor

Dome dial

- Attached to motor to rotate the dome

Aluminium frame

- Holds the back panels where electronics are

Eye

- Vacuum-formed acrylic eyeball

LED lights



Dome

- Flat aluminium sheet moulded into a dome shape and sanded to finish

Circular frame

- Holds the electronics inside the dome

Power cable

- Supplies power to the lights in the dome

Mr Ng Hak Beng's R2-D2

- Stands 1.1m tall and weighs 120kg
- Fully operational replica with authentic sounds
- Custom-made by the 42-year-old IT consultant using available parts
- Electronics and blueprints were sourced via other hobbyists
- Took about 1 1/2 years to make
- Cost: \$15,000
- It is controlled remotely from up to 3km away

Shoulder bracket



Power cable

- Supplies power to the lights in the dome

Speakers
Recycled PC speakers

Battery

- Droid is powered by this 12-volt battery, mainly used in trucks
- Lasts eight hours on one charge

Main speed controller

Third leg

- Uses castor wheels, like the ones used on office chairs

Hinged ankle



Painted custom aluminium parts

Body

- Aluminium sheet shaped into a cylinder

Power cable

- Connects to the speed controller inside the body to control the wheels

Held in place underneath the body by four screws

Custom-made rubber and plastic wheels