

Expert to fight fruit fly in palm of your hand

CLARE PEDDIE
SCIENCE REPORTER

ARTIFICIAL intelligence for mobile fruit fly detection is within reach thanks to start-up company GoMicro.

The company's versatile clip-on microscope for smartphones, originally developed for educational purposes, is now finding applications in agriculture.

GoMicro founder and chief executive Dr Sivam Krish is excited about the possibilities.

"We can build an app for anything that requires magnification in next to no time and next to no cost, all we need is funding," he said.

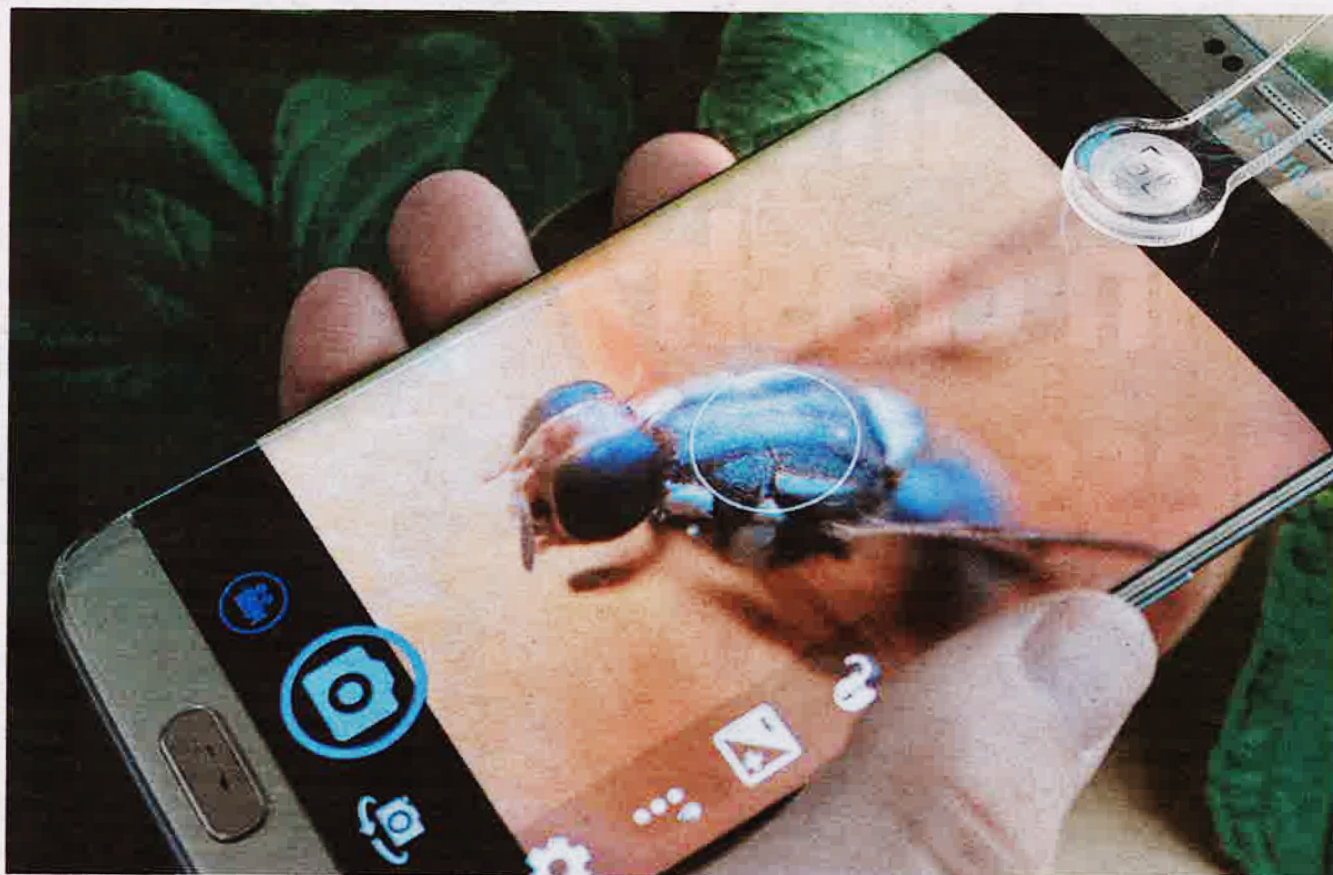
"When news of the recent fruit fly outbreak came in, we adapted our microscope to take photos of flies in a single day. The first version that we designed and 3D printed worked marvellously."

The team then sourced 200 dead flies, including the feared Queensland fruit fly, from the South Australian Research and Development Institute.

That day they took lots of photos and let a computer learn how to tell the difference between Queensland fruit flies and other flies.

Dr Krish said the results were "shocking", in a good way. The computer got it right every time. It could even tell male fruit flies from females about 90 per cent of the time.

Researchers in the New Venture Institute at Flinders



DETECTED: Queensland fruit fly image taken on a smartphone with the clip-on microscope attachment.

Picture: GOMICRO

Tonsley used freely available "open source" software known as a Tensorflow AI-engine that was originally developed by Google.

The plan now is to develop a smartphone app that will send the technology into the field, where growers, quarantine inspectors and even the general public can put it to good use.

Dr Krish said GoMicro could also be used to identify other pests and diseases.

Last year SARDI bought and distributed 100 GoMicros to farmers across Australia. They have been very popular.

Former executive director Professor Rob Lewis is a key adviser to GoMicro.

"The GoMicro platform is

an exciting example of the successful integration of key technologies: Mobile, microscopy, machine learning and interpretative data analyses, to deliver next-generation agtech solutions aimed at improving Australian agriculture's biosecurity vigilance and protection," he said. "The platform is also an excellent teaching aid."

The State Government spends \$5 million each year to keep fruit fly and other pests out of SA.

An outbreak of Queensland fruit fly was declared in Loxton on December 6 after seven flies were detected in the area.

Quarantine and suspension areas will remain in place until at least April 29.

Gender equality not reality

LANAI SCARR

ONE in three Australian women believe they have missed out on professional opportunities because they are female.

And more than half believe gender equality is still not a reality or improving fast enough, while 64 per cent of men think the opposite.

News Corp Australia can reveal the findings of a survey of 2081 Australians ahead of International Women's Day tomorrow. The research also

showed 37 per cent of women don't feel they have been given the same opportunities as men in the workforce, with one in four women stating they have missed out on a promotional opportunity that went to a male colleague who was less qualified than them.

Close to 40 per cent of women who work full time say they have missed out on professional opportunities because of their gender.

The research was conducted by YouGov Galaxy on behalf of women's dating app Bumble, which is launching an initiative to tackle tall poppy syndrome in Australia, arguing it is one of the leading barriers to gender equality locally.



Luxury aged care facility

CONSTRUCTION is likely to begin later this year on a new \$15 million 'luxury' aged care facility on Hindmarsh Island.

The 75-bed facility will be built at Coorong Quays, an award-winning master planned waterfront residential estate and marina situated on the edge of the Coorong and Lower Murray lakes.



Plan to revive river species extinct in SA

CLARE PEDDIE

A SEARCH for South Australia's long-lost Murray crayfish

Nature Glenelg Trust hatched the plan.

The idea started taking shape when they were working

live in SA too," Dr Whiterod said. "Then we started looking at whether they could still be around and if not, is there a way to get them reinstated?"

Transactions of the Royal Society of South Australia outlines a plan to re-establish the species.

Now all they need is funding to turn the dream into reality.