Handy simulates regular hand motions and is easier to use than traditional physical therapy methods. Photo source: jamesdysonaward.org

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**ROBOTIC GLOVE HELPS STROKE PATIENTS RECOVER MUSCLE USE**

HEALTH & WELLBEING

**Handy aims to improve muscle and nerve function more efficiently than traditional stroke treatment**

**Spotted:** Students at China’s Jiangnan University have developed a robotic glove that helps stroke patients recover the use of their hand muscles. The students say their system — known as Handy — is more effective than traditional physical therapy.

The glove simulates regular hand motions and is easier to use than traditional physical therapy methods. It also provides feedback during the process and is cheaper to produce than traditional, mechanical devices.

Handy inflates around the patient’s hand. It uses sensors to track the process of a patient attempting to follow movements shown on a connected computer or iPad. The sensors pick up when the patient is trying to move its finger to instruct Handy to bend as needed. This exercise is repeated and is **customised based on the patient’s reactions and responses**.

The students have already tested Handy at a local hospital and received three patents on their technology. They are working on a second version of the prototype, with an eye on keeping costs down for mass production. They are aiming to have a single Handy glove cost around €20.

Springwise has spotted other innovative ways to help people recover from strokes, including using **VR to retrain the brain**.

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Takeaway:

Globally, 16 million people suffer from strokes every year. An estimated 80 per cent of these victims lose the use of their hands. Handy is part of an on-going trend to use robotics to help stroke patients recover. The students’ cost-effective approach could make the technology more accessible.