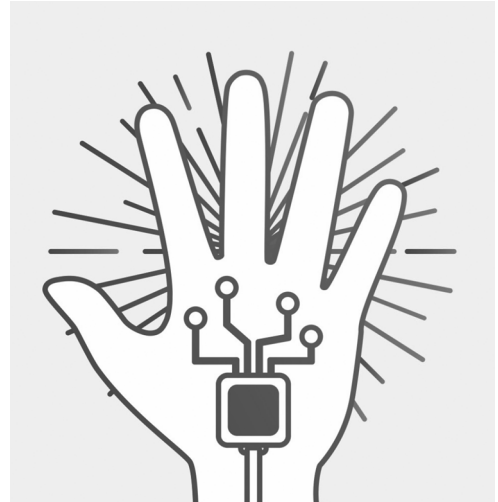


Wearable tech-glove translates sign language

- 1 UCLA bioengineers have designed a glove-like device that can translate American Sign Language into English speech in real time through a smartphone app. “Our hope is that this opens up an easy way for people who use sign language to communicate directly with non-signers without needing someone else to translate for them,” said Jun Chen, an assistant professor of bioengineering at the UCLA Samueli School of Engineering and the principal investigator on the research. “ 36 , we hope it can help more people learn sign language themselves.”



- 2 The system includes a pair of gloves with thin, stretchable sensors that run the length of each of the five fingers. These sensors, made from electrically conducting yarns, pick up hand motions and finger placements that stand for individual letters, numbers, words and phrases.
- 3 The device then turns the finger movements into electrical signals, which are sent to a dollar-coin-sized circuit board worn on the wrist. The board transmits those signals wirelessly to a smartphone that translates them into spoken words at the rate of about one word per second.
- 4 Previous wearable systems that offered translation from American Sign Language were limited by bulky and heavy device designs or were unpleasant to wear, Chen said. The device developed by the UCLA team is made from lightweight and inexpensive but long-lasting, stretchable polymers. The electronic sensors are also very flexible and inexpensive.

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Tekst 11 Wearable tech-glove translates sign language

- 1p 36 Kies bij 36 in alinea 1 het juiste antwoord uit de gegeven mogelijkheden.
- A Consequently
 - B For example
 - C However
 - D In addition
 - E In conclusion
- 2p 37 Geef aan of de volgende beweringen over het apparaat overeenkomen met de inhoud van alinea 2 en/of 3.
Omcirkel 'wel' of 'niet' achter elk nummer in de uitwerkbijlage.
- 1 De sensoren buigen mee met de bewegingen van je vingers.
 - 2 De bewegingen van je vingers worden als elektrische signalen doorgestuurd.
 - 3 Je kunt met behulp van deze handschoen sneller communiceren dan met gebarentaal.
- 1p 38 Which of the following is true for the new device, according to paragraph 4?
- A The new model costs more money than the older models.
 - B The new model is more comfortable to use than the older models.
 - C The new model recognises more symbols than the older models.

Bronvermelding

Een opsomming van de in dit examen gebruikte bronnen, zoals teksten en afbeeldingen, is te vinden in het bij dit examen behorende correctievoorschrift.