

Epreuve orale de DNL

Durée de préparation : 20 minutes
Durée de l'épreuve : 20 minutes
(10 minutes de présentation orale, 10 minutes d'entretien)

A robotic hand helps piano player's fingers move faster

By Kathryn Hulick for "ScienceNewsExplores", "March, 2025"

5 You're practicing a new song on piano. One part keeps tripping you up. No matter how many times you try it, your fingers just won't move fast enough. Then you put on a special device that looks like a robotic hand. Its motor wiggles your fingers faster than you could move them on your own. When you sit at the piano again without the robo-hand, your fingers can now hop into high gear. You're playing the fast part that seemed impossible before.

In a recent series of experiments, dozens of professional piano players had this exact experience. They improved their piano skills using a wearable robotic hand, also called an exoskeleton. Shinichi Furuya and his team shared the results January 15 in *Science Robotics*.

10 "Many people are using this kind of robot for rehabilitation or virtual reality gaming," says Furuya. "I thought maybe this is also good for music education." Furuya is a researcher at the NeuroPiano Institute at Sony Computer Science Laboratories, Inc. in Tokyo, Japan.

Nicholas Hatsopoulos studies sensory motor control at the University of Chicago in Illinois. A neuroscientist, he did not take part in the new study. But he really liked it. "I thought it was super cool," he says.

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*This may look like a cyborg.
But it's actually a glove-like robot strapped over a person's fingers.*

Present the document and answer the following questions:

1. Explain the advantages and disadvantages of using robots in life.
2. If an artist plays with robot hand, is he an artist?