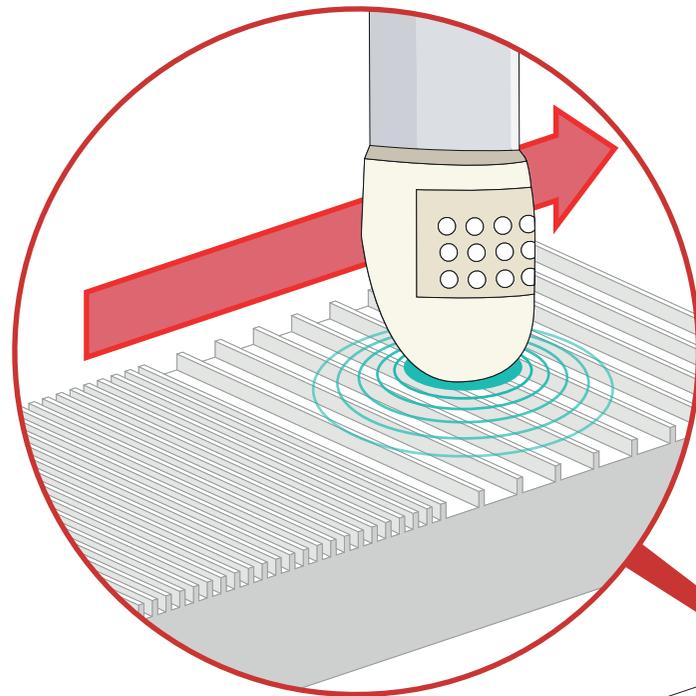


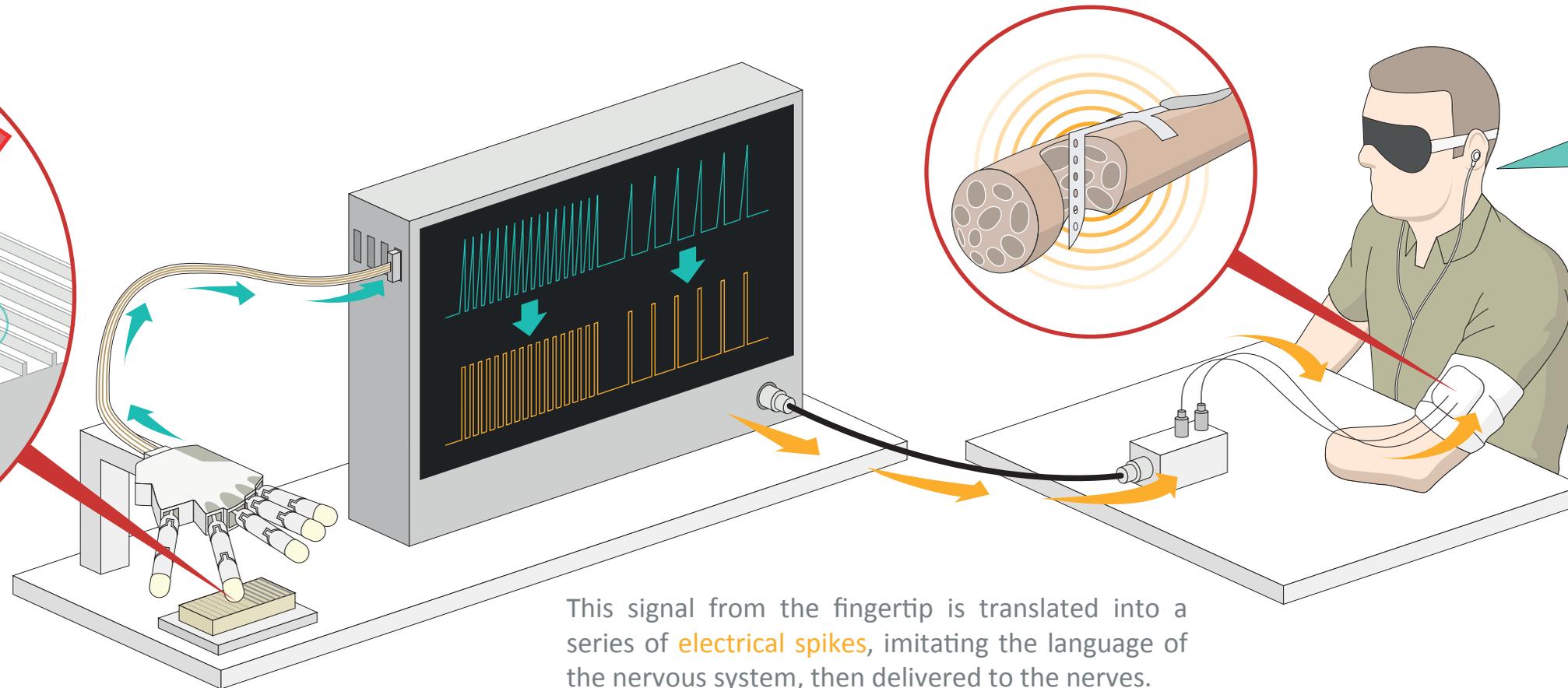
Feeling Texture with a Bionic Fingertip

An amputee feels textural features in realtime from an artificial fingertip connected to nerves in the arm.

Sensors in the fingertip generate an **electrical signal** by moving across the textured surface.

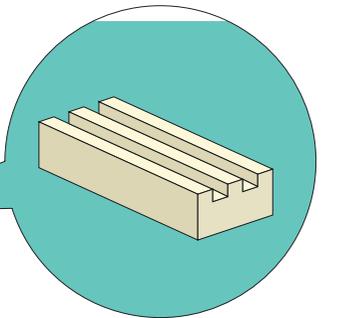


Lines close together have a smoother texture than lines that are farther apart.



This signal from the fingertip is translated into a series of **electrical spikes**, imitating the language of the nervous system, then delivered to the nerves.

The amputee could tell 96% of the time if the surface was rough or smooth.



96%



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