

# Pulse Generator



**The Device:** The Patch System is intended to stimulate the perineum in adult males to improve or enhance sexual performance.

**Project Scope:** Develop a neuromodulation system with pulse generator, charger, patient app, cloud backend, and disposable patch.



## CHALLENGES

Creating Low-Cost disposable patches

Miniaturization of Pulse Generator with IP

In-field updates for generator with firmware

## ENGINEERING SOLUTIONS

Mating pulse generator with low-cost plastic with aluminum wrapped around plastic tabs to between generator & patch

Designed pulse generator to exceed IP44 through ultrasonic welding, insert molded contacts for charging and stimulation

Firmware updates are pushed from the cloud backend, with app performing updates to pulse generator

## Results:



### Neurostimulation Platform

Leveraged Nextern's neuostimulation platform which includes 8 current controlled channels.



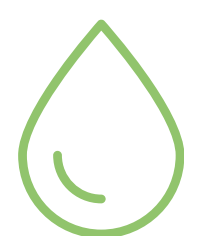
### Nextern Liink

Utilized Nextern's internal software team to develop an app to connect via Bluetooth to the device and push data into the cloud.



### Low-cost disposables

Utilized Nextern's internal software team to develop an app to connect via Bluetooth to the device.



### Ingress Protection

Developed enclosure designed and tested to exceed an IP44 water-ingress rating.

## Project Wins:

Miniaturization of device providing comfort for test users, along with on-device controls engineered to a single button.

## End point:

We manufacture the commercial product.