



Loop AI is developing the Loop seizure kit – the first ever affordable kid-friendly non-invasive seizure suppressing system.

Loop AI was founded on the vision of maximizing the potential of the human brain. With Loop, we are not just solving the problem of epileptic seizures – we are creating the unified platform for brain treatment, recovery, and augmentation. At Loop, we are dedicated to accelerating humanity's ability to recover, learn, and adapt through neural coprocessors.

Status Quo

Epilepsy is characterized by frequent unpredictable seizures, which are debilitating. They kill neurons, limit brain development in children, and prevent kids from things like participating in sports or watching movies because both trigger seizures. In the world, over 50 million people have active epilepsy, 80% of which can't afford treatment. The only treatments available are anti-epileptic drugs (which are ineffective for 30% of patients and only stop seizures 6% of the time) and surgery to remove part or entire hemispheres of the brain.

Loop Kit

Here at Loop AI, we are developing the Loop seizure kit, which detects and stops seizures in real-time. Our armband uses machine learning to detect pre-seizure biomarkers in sweat. Once a seizure is identified, the armband buzzes, alerting the patient to use our handheld device, which employs focused ultrasound to stop the seizure in its tracks. This system is the first ever non-invasive, affordable, and kid-friendly treatment for epileptic seizures. Everyone's seizure experience is different – we recognize this, so the devices are customizable and flexible.

A world with Loop is a world without epileptic seizures.

Sensors on the armband detect the presence of menthone and other pheromones that indicate upcoming seizures. Then it buzzes to let the patient know.

Recent, promising studies show that focused ultrasound therapy can be used to suppress seizures. Ultrasound transducers emit waves at about 750kHz, which halts abnormal neural activity. However, this has only been done in clinics with bulky ultrasound machinery, which is not suitable for a handheld device. For this reason, we plan to tackle the technological gap by creating small ultrasound transducers which can rotate and collectively produce the frequency needed to stop seizures.



Development



Create ideal ultrasound transducers to close the technical gap and make ONE a reality



Perform clinical trials, gain FDA approval, train algorithm and launch the ONE app



Release the ONE headband and collect data for R&D of future projects



Utilize coprocessor technology similar to ONE to enhance and repair human cognition.