



Technology Licensing Office and Life Sciences Incubator  
BioVentures, LLC  
4301 W. Markham St., #831, Little Rock, AR 72205-7199  
(501) 686-6696  
bioventures.uams.edu

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## Neurosurgical Device for Immersive Distraction Therapy

### **Application**

The present invention is a device that allows a patient who is undergoing neurosurgery to be distracted through a virtual reality environment

### **Key Benefits**

- Mechanical device that attaches to stereotactic headframe
- Allows distraction of patient during brain surgeries where patient is awake
- Allows patient to provide feedback when necessary

### **Invention Summary**

The use of stereotactic head frames remains an integral part of neurosurgical practice today for the implantation of deep brain stimulators, depth electrodes, stereotactic brain biopsy, and cranial radiosurgery. During those brain surgeries the patient needs to be awake, which generates anxiety. The present invention is a device that allows a virtual reality headset to be mounted on a stereotactic head frame so that the patient can be distracted during the operation. The headset has been 3D printed, made of plastic, with two lenses, and does not include any circuitry on it. The headset has a slot where the physician can put a smartphone and can set up games, movies or 3D experiences. The model is using the Google VR software package.

### **Developmental Stage**

Prototype built and tested

### **Patent Information**

App Type	Country	Serial No.	Patent No.	File Date	Issue Date
Provisional	US	63/059,849		07/31/2021	

**Contact** Nancy M. Gray, Ph.D. [nmgray@uams.edu](mailto:nmgray@uams.edu)

**Tech ID** 2022

**Inventors** Erika Petersen, Mohamed Abdeldayem, Kevin Sexton, Joseph Sanford, Adria Villafranca