

## **A Novel Way to Create Orthopedic Casts**

### **Description**

An orthopedic cast or plaster cast is a protective shell commonly made from "Plaster of Paris" or fiberglass. It is used to stabilize and support fractures to aid healing. Plaster of Paris is essentially calcium sulfate hemihydrate, a white powder that forms a paste when it is mixed with water. The paste hardens into a solid and is used to make plaster cast as it is cheap and readily available. Due to the nature of the plaster cast, the skin under the plaster may become dry and itchy. The weight of the plaster cast is also another limitation as it causes discomfort and also restricts movement.

### **Desired technical features**

We welcome collaboration with industry partners/academic/research institutions and would like to work together to brainstorm other solutions and proposals.

We believe the plaster cast should be:

- Lightweight
- Breathable
- Easy to adjust
- Low cost
- Fast application (less than 12 hours)
- Tough
- Waterproof/water resistant

### **Business model**

- R&D Collaboration
- Business Collaboration (Joint Venture, Distribution)