## Innovator Showcase







MINIMAL ACCESS ROBOTICS COULD TRANSFORM SURGICAL OUTCOMES FOR PATIENTS

**Articulus Surgical** 

India





Saurya Mishra

Minimally invasive surgical techniques have been proven to reduce blood loss, recovery time, and the risk of unique complications. Inspired by the intersection of engineering and healthcare, Saurya's team has developed prototype hardware which simplifies and streamlines the majority of surgical procedures – especially gynaecological ones.

Many hysterectomy procedures currently involve twelve-month recovery times, yet Articulus could potentially reduce this to just days. Articulus Surgical's focus on improving women's health aligns with the UN's Sustainable Development Goals to achieve gender equality.

As well as selling the product conventionally, Articulus will provide the device to smaller Indian hospitals free of charge, with fees levied whenever surgical procedures take place. This unique business model will democratise access to transformative new surgical technology throughout India's healthcare system. Saurya praises the startup companies Articulus has partnered with, from smart actuation system developers, to chip set manufacturers focused on minimising latency.

Articulus's minimum viable product will require extensive compliance and clinical trials, with the latter scheduled to begin in early 2025.





Every year, 170 million people undergo surgical procedures worldwide, with varying outcomes dependant on the quality of the healthcare system.

An Indian startup led by founder Saurya Mishra is standardising and democratising minimal access surgery, combining cutting-edge British components and innovative payment models to build affordable and accessible hardware. These surgical robotic systems will deliver safer medical procedures, with quicker recovery times and better outcomes for patients around the world.

Saurya describes the LIF programme as "one of the most amazing experiences I've had. It's given us a global perspective, changing how we build the product and partnerships alike." Close collaboration with other participants has led to invaluable mentoring and peer support: "We met amazing entrepreneurs from all around the world, each with a specific strong suit – engineering, business finance, crypto. We actively seek each other's opinions and mentorship, pushing all our businesses forwards. There's a whole spectrum of gaining knowledge on the LIF programme."

The seven-strong Articulus team is set to double in size over the coming year, and the company is striving to support hundreds of jobs internationally. Indian hospitals have already invested in this pioneering technology, while medical device conglomerates are keen to market it worldwide. Customer pre-orders have already been received, with some firms investing now to ensure priority access to this groundbreaking product. Saurya also notes the similarities between the UK and Indian healthcare systems, with a UK office set to begin Articulus's international rollout and support dialogue with the NHS.

The Royal Academy of Engineering's Leaders in Innovation Fellowships (LIF) programme supports talented entrepreneurs from around the globe to turn their engineering innovations into impactful, sustainable businesses.

Royal Academy of Engineering Prince Philip House 3 Carlton House Terrace London SWIY 5DG info-lif@lif.raeng.org.uk
Tel: +44 (0)20 7766 0600
www.raeng.org.uk
@RAEngGlobal
Registered charity number 293074