



# Devicix

Engineering the Future of Medicine

Surgical Instruments

Case Study

## SPINE ARTHROPLASTY POWER INJECTOR

Disc Dynamics Incorporated (DDI) was founded as an orthopedic spine company to provide patients and physicians with a minimally invasive surgical alternative for treating degenerative disc disease.



DDI contracted Devicix to develop a powered surgical instrument for their proprietary polymer that is injected into the spine disc space. Devicix had the expertise in orthopedic products, medical electronics, and medical device software.

Medical product design by Devicix:

- 14 months to first human use
- Class III medical device
- Medical electronics and medical device software per ISO 62304
- Closed loop embedded system design
- Powered surgical instrument
- Electronics packaging
- Human factors and graphical user interface (GUI)
- Contract medical device manufacturing
- Medical device software validation
- Medical device electrical safety testing (IEC 60601)