Robotic Surgery
Spectrum Plastics Group’s expertise with advanced polymeric component manufacturing suits precisely the needs of this trending product and application segment.

Product Solutions
- Insulation sheaths and silicone jackets for electrocauterization
- Lubricious tubing for articulation wires and mechanisms
- Single lumen and para-tubing drainage extrusions
- Metal replacement components for robotic system housings, instruments, and fixtures
- Catheter delivery system components and sub- assemblies for Vascular Robotics applications
- Orthopedic implants and instrumentation components

Material Solutions
Metal Replacement Materials
PEEK, Polysulfone (PSU), Polyphenylsulfone (PPSU), and Polyarylamide (PARA):
- Chemical resistance
- Impact strength
- Extended service life
- Wear/Abrasion resistance
- Dielectric strength

High Temperature Flexible Polymers
Fluoropolymers:
- Biocompatibility
- Lubriciousness
- Chemical resistance
Fluropolymer grades include EFEP, ECTFE, ETFE, FEP, PCTFE, PFA (Ultra High & High Purity), and PVDF. EFEP is a versatile and lubricious low temperature fluoropolymer that allows for multi-layer extrusion with Nylon 12 or PEBA without the need for etching.

Silicone:
- Durable and flexible
- Inert & bacteria resistant
- Biocompatible
- Dielectric properties

Other flexible materials Spectrum Plastics converts for Surgical Robotics innovators
- Polyurethane
- PEBA

Why Choose Spectrum Plastics?
- Experience in converting advanced polymeric materials
- Precision component manufacturing via both extrusion and injection molding conversion processes
- Polymer science knowhow from technical experts
- Work with highly experienced engineering teams to conceive, develop and develop your next project

For questions or more information, visit spectrumplastics.com.