

## Medical & Life Sciences

*Project  
Management*



*Mechanical  
Engineering*



*Quality  
Engineering*



## SUPPORT THE ONGOING DESIGN AND DEVELOPMENT OF NOVEL DRUG DELIVERY SYSTEMS WITH A DOD USE CASE

### APPROACH

- Rapid prototyping and iterative testing
- Perform DFSS and 99.999% reliability activities

### RESULTS

- Enabled client to produce functional prototypes for initial verification testing in six months
- Created process to visually inspect drug container to ensure it is free of particulate matter
- Redesigned piston seal, housing seal, and aseptic cover to improve performance
- Created tools that substantially reduced assembly and disassembly time and likelihood of damage to seals during assembly and disassembly

### KEY TECHNOLOGIES

- Consumables
- Six Sigma
- DFMEA and PFMEA
- Gage R&R
- Fault tree analysis

