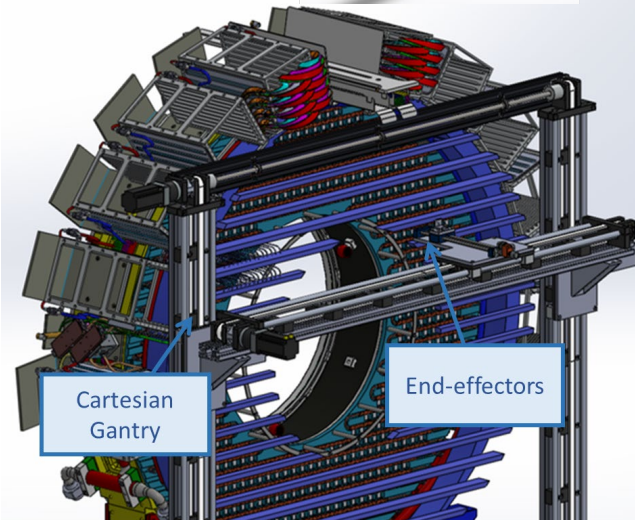
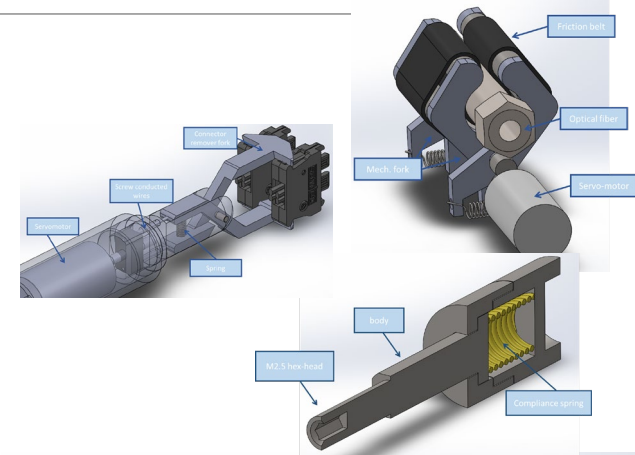


# Conceptual design of a robotic arm for the maintenance of the Read-Out Units of the Mu2e electromagnetic calorimeter

- The calorimeter is one of the three detectors of the Mu2e Experiment at Fermilab. Its main components are the scintillating CsI crystals, the Read-Out Units with the SiPMs and the Digitizing boards
- Because the calorimeter must face a high radiation flux, and because of the limited time and space of the scheduled maintenance, substitution of damaged electronic components will be difficult
- We are developing a robotic system to replace the RO Units damaged and avoid human manipulation close to the detector



- The system is made of a gantry structure for X-Y positioning behind the calorimeter disk
- Several custom designed end-effectors to fulfill the required tasks

