

# Automation of Prosthetic Shoulder Stem Blasting Process

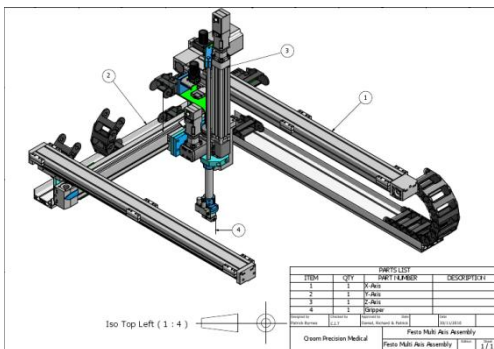
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The team project objective is to fully automate a ceramic blasting process of a shoulder stem for the bio-medical manufacturing plant Croom Precision Medical.



CPM produces about 24,000 finished stems a year. The company has a 'rework' rate of 0.05% yearly - 1200 part stems reworked during the manufacturing process. The team plans to significantly reduce this number.

We decided that we need to develop a fully automated system. This will reduce tedious work, save the company time and money, and will also guarantee a quality finish every time



The team iteratively designed, developed, manufactured, assembled and commissioned a Festo 3-axis gantry system. The final design is suspended in an aluminium extruded frame with plastic panelling.

Parameterisation of the developing system was achieved by the team based on a Festo configuration tool software platform. Commissioning and operational optimisation of the developing system is currently underway.

