



# Profiling Hospital Bed Design

## Description

Design & development of an electro-mechanically driven, profiling hospital bed, with moving head rest, leg rest and Trendelenburg mechanisms, in conjunction with an industrial design company.

The bed was designed to carry a 35 stone patient and offer some of the most advanced features for a bed in this sector of the market.

It has 6 easily selectable, independent profiling positions that can also act together when required.

Easy and quick access to the patient was assured using collapsible bed sides. A central braking system also ensured easy and reliable four wheel braking.

## Disciplines Used

- Mechanical & electro-mechanical design
- Stress analysis
- Finite Element Analysis
- Control systems

## Specification Summary

- Design of overall bed structure and actuation systems
- Compliance with Kings Fund specification for hospital beds
- Finite element stress analysis of the bed structure and main loading points
- Cater for 35 stone patient maximum
- Six main profiling positions - four electro-mechanical actuators controlled via small keypad
- Collapsible bed sides for ease of access
- Central braking system



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