

# PARE Patient REpositioner



## Easy Patient Positioning

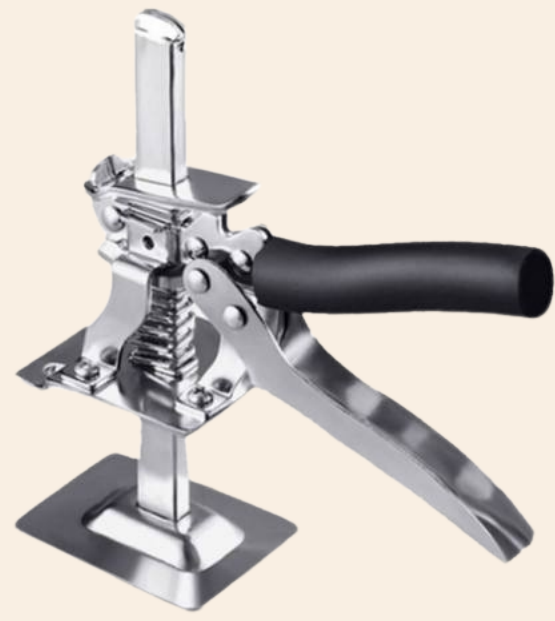


**Periodic patient repositioning** by nurses results in **lower back strain**, risking musculoskeletal disorders and impacting work capacity. Repositioning heavier patients, often requiring **two nurses**, worsens the workload issue, critical amid the **nursing staff shortage** in Singapore

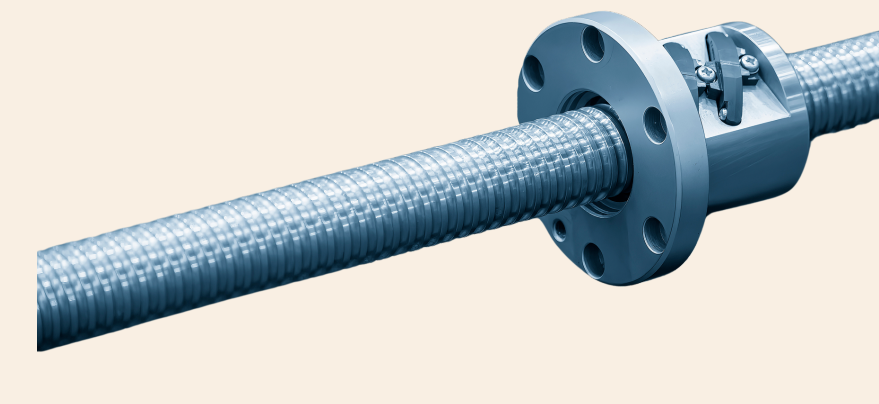


**PARE** is a device that can help nurses to reposition patients by themselves using a remote control. The device clips on to the bed frame and the slide sheet is attached to it. PARE can be controlled via a joystick to move up or down

### KEY FEATURES OF PARE:



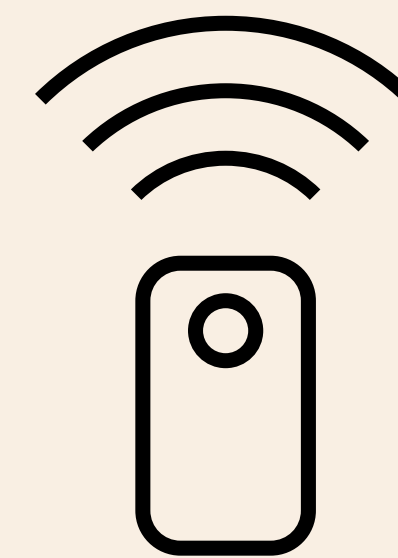
Hand Clamp attaches and raises device on bed



Lead Screw for horizontal movement



Slide sheet attaches to PARE via grommets



Wireless Control

### What PARE is designed to achieve:



Independence



Increased Job Satisfaction



Reduced Pain-Related Medical Leaves

### WORKING

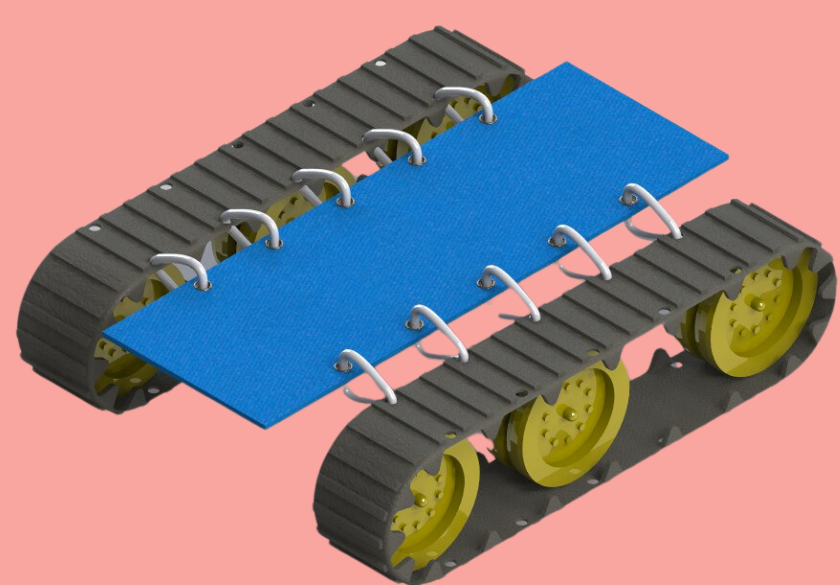
1. Patient flags down nurse/Routine check
2. Nurse attaches device to bed
3. Nurse attaches slide sheet to device
4. Nurse raises device using hand clamp
5. Move patient via joystick
6. Detach slide sheet and device from bed

### MARKET



**26K beds x \$500  
= \$130K**

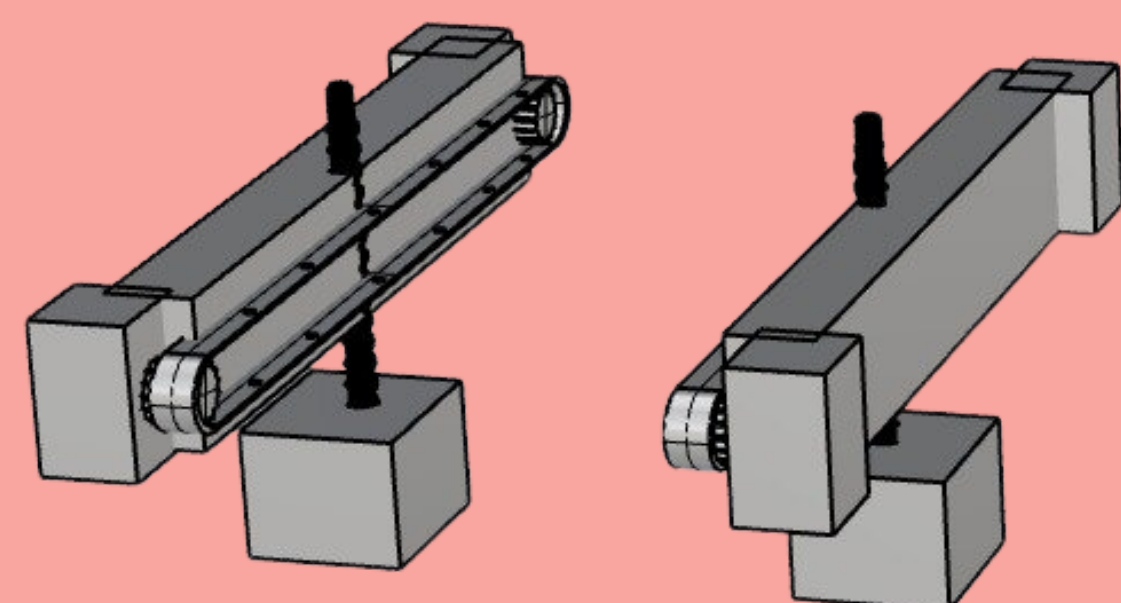
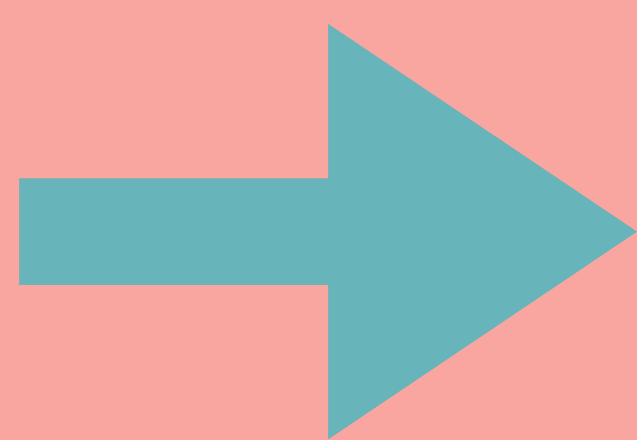
### CONCEPT GENERATION



DuoMove

Pros: Fully automated movement

Cons: Safety hazard



PARE

Pros: Safe and stable patient repositioning

Cons: Manual hand clamp

### RESULTS

Device is able to

1. Move patient 30cm within 1 minute
2. Withstand a load of 120kgs

### FUTURE IMPROVEMENT

Shifting from manual clamps to motors for vertical motion would make the device fully automated