

# LOW COST WIRELESS PATIENT WEIGHT MEASUREMENT SYSTEM FOR THE PHYSICALLY IMPAIRED AND BEDRIDDEN

## TECHNOLOGY OVERVIEW

This adaptive low-cost bed-based weight measurement system can be permanently installed onto a standard hospital bed, to monitor the weight of patients. It can be operated wirelessly to obtain data via a centralised PC (at a distance of up to 30m). The system has a maximum load capacity of 120kg per bed section, and has an accuracy of +/- 1kg.

The system offers an affordable and convenient way of monitoring elderly, physically impaired or bedridden patients. Most importantly, it reduces the need for patients to be transferred to a weighing system in hospitals and homes thus reducing distress and discomfort for patients.



WIRELESS  
COMMUNICATION



READING TAKEN  
FROM REMOTE PC

## POTENTIAL APPLICATIONS

When applied to sectional beds, this technology can be used in hospitals, care-homes, hospices and in domestic homes.

The same technology can be used to weigh items on trolleys and shelves, or it can be used to create a low-cost weigh-bridge system.

## MARKET OPPORTUNITIES

It is estimated that this measurement system will cost less than half of that of conventional weigh-bed systems, making it viable for hospitals and nursing homes to install it on numerous bed frames.

It can also be modified and installed on other types of frames and structures to create cost-effective weight measurement systems.

## COMMERCIALISATION

This technology is available for licensing.

## CONTACT DETAILS

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Whether you are looking for new ideas to improve your current business flow, need access to research and technology expertise, or require facilities to bring your innovative ideas to life, we may be the partner for you.

At Republic Polytechnic (RP), we bridge the gap between knowledge and application by facilitating information and technology transfer to industry partners. Taking a holistic approach, our team of experts can assess your business needs, provide consultancy, conduct feasibility studies, and render support to help increase your company's competitiveness.

## Facilities and Equipment

RP is home to state-of-the-art facilities and the latest technology, which are on par with industry standards. You can access these facilities by collaborating with RP on joint projects or through facility and equipment rentals.

## Research and Development

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## Current Opportunities for Collaboration and Commercialisation

- Augmented Reality in Mainstream Sports Medicine – Diagnosis and Treatment of Lower Limb Injuries
- Brain Controlled Communicating Device for the Physically Handicapped
- Innovative Single-tube Multiplex Diagnostic Platform for Dengue and Chikungunya Viruses
- Low Cost Wireless Patient Weight Measurement System for the Physically Impaired and Bedridden
- New Catalysts for Sustainable Liquid Biofuels
- New Chemical Entities with Potential Applications in Photodynamic Therapy
- Regenerative Energy Wireless Sensor Network for Data Centre
- Thermoelectric Micro-coolers for Electronic and Optoelectronic Applications
- Visual Sentiment Analytics for Social Media Analysis
- Wireless Proximity Sensing for Safety and Security Applications

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