

1

Place hands as seen below.  
Turn patient until your  
screen is green.



SWIPE WHEN GREEN



JOHNS HOPKINS  
UNIVERSITY

# SWAY

- Pressure ulcers (PUs) are crater-like wounds which arise from reduced blood flow to a certain area due to prolonged pressure on the skin
- Despite protocols to prevent their formation, around 11% of nursing home residents develop PUs in a given year
- Caretakers need a simple, efficient device to help reposition patients and prevent pressure ulcers
- Sway is a mobile app and wearable device which work in conjunction to prevent pressure ulcer formation

- Our wearable has a ring of LEDs that help guide inexperienced caregivers in turning the patient to the optimal angle to reduce pressure. Our two-node design ensures uniform turning and tracks the time between turns to ensure regular repositioning. In addition to sending alerts to remind caregivers to reposition patients after a period of two hours, our companion app provides additional guidance through visual turning graphics and will turn green once the ideal turning angle is reached on both nodes. Finally, a reminder is given to ensure the knees and heels do not touch.



**Live Visual Feedback on Patient Position**



**Turning Guide for Inexperienced Caretakers**



**Mobile Reminders to Ensure Regular Repositioning**



**Two-Node Design Promotes Uniform Angle Change**