

## Fun With Physics: CENTENIAL SCREAMER



This ride starts with the wheel in a horizontal position. Once the doors are shut and the latches checked the ride begins to rotate, gaining speed until riders are held in place by centrifugal force. At this point the arm attached to the wheel begins raise to a vertical position, sending riders upside down. Grab a friend take a ride, if you dare.

Note: You can use the *G-Force* sensor in the *PhysicsToolbox Sensor Suit* (see page 13) to help answer these questions, but it is not required.

- a) Where did you feel lightest during the ride? Draw a force diagram to explain why.
  
  
  
  
  
  
  
  
  
  
- b) Where in the ride did you feel normal weight (1 g)? Draw a force diagram to explain why.
  
  
  
  
  
  
  
  
  
  
- c) Where in the ride do you feel the heaviest? Draw a force diagram to explain why.