



Adventure Mountain Limited
Risk Assessment for Adventure Segway

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This document has been prepared in conjunction with the latest official Segway Inc. safety documents, including:

- Getting Started Manual 20601-00001aa
- Reference Manual 20602-00001ab
- Instructional DVD 20600-00001ab
- Assembly Instructions Guide 21159-00001aa
- Reference Manual Supplement 21356-00001 Rev ac

The company's Terms and Conditions of Admission, Risk Awareness Guide and Risk Awareness Disclaimer should also be consulted.

It is a company policy that employees at Adventure Mountain read/observe all the above documents (including this Risk Assessment).

Description of the Hazard - Manual Handling

Risk Rating ↘
LOW MEDIUM HIGH

Who? Staff only

Information Purposes Only

The weight of the Segway is 97 lbs or 44kg and the weight of the battery is 22.7 lbs or 10.3kg.

Control Measures

Segway recommends that two people work together to lift the Segway PT.

To lift the Segway PT:

1. Make sure the Segway PT is unplugged and powered off.
2. Select firm, non-moving lifting points such as the Powerbase or lower cargo frames if provided.
3. Lift the Segway PT with your legs, not your back.

The Segway will only be lifted by two persons as guided by the diagram in the Reference Manual p82-83.

There are no areas planned around the reception base, training area or guided course where there is a need to lift the units.

Description of the Hazard – Segway Malfunction

Risk Rating ↘
LOW MEDIUM HIGH

Who? Visitors and Staff

Information Purposes Only

The Segway PT has been designed to self diagnose system faults. If the Segway PT detects a fault in any of its redundant systems, the machine will automatically warn the rider with a beep, reduce its speed, give the ‘Stick Shake’ warning (shakes the handlebar and makes growling noises), flash the Balance Indicator lights, and the InfoKey Controller displays an unhappy face.

Control Measures

There are many indicators to warn the user of an imminent computer malfunction. Visitors will be fully trained in the use of a Segway before they step onto one. A part of the training will be identifying the above signs of system malfunction and guests will be asked to stop, disembark and blow their whistle (provided) to alert the attention of the instructor, who will be with the group at all times. The instructor will utilise the remote InfoKey Controller to understand the significance of the fault.

There is a limited capacity in the battery charge. The battery charge will be consistently monitored by the operator and rotated or charged as appropriate throughout the day.

The Segway units will be tested and operator accessible components/screws will be checked every morning prior to visitor use. This will be recorded by operator name and signature on the Daily Safety Declaration and visitors are welcome to request to view this document.

Description of the Hazard – Participant Negligence

Risk Rating

LOW



MEDIUM

HIGH

Who?

Visitors and Staff

Section One – Pre Requisites (Age, Weight and Health)

Section Two – During the Tour (Rider Etiquette)

The safety waterproof sticker below is to be retained and in view on the device.

WARNING

RISK OF DEATH OR SERIOUS INJURY.

Whenever you ride the Segway PT, you risk death or serious injury from loss of control, collisions, and falls. To ride safely, you must read and follow all instructions and warnings in the User Materials.

Section One

Information Purposes Only

The minimum weight for the safe operation of the Segway is **100 lbs or 45kg or 7s.**

The maximum weight for the safe operation of the Segway is **260lbs or 117kg or 19s.**

Control Measures

Riders must be at least 10 years of age. There is a maximum supervision ratio set of 1 adult (18 or over) to 3 children (under 16).

Minimum requirements are detailed clearly on the Company's website, literature and Risk Awareness Documents and we reserve the right to request identification to confirm guests are within the above safe operating restrictions.

Section Two

Information Purposes Only

When operated correctly (and in accordance with the instructions given to all participants) the Segway PT is a safe vehicle to ride. However a fall could result from participants:

- not fully understanding their capability or limits with regards to controlling the Segway PT;
- who decide to ride the Segway PT in an inappropriate manner;
- who ride into obstacles (most likely with just one wheel or the undercarriage)
- who ride away from the designated tour or get lost and decide to explore an unauthorised tour route.

Control Measures

Unattended Segways will be locked or security enabled when not in use. The control unit (or Info Key) which controls the device will always be kept separate to the Segway PT.

Before participants take part in Adventure Segway they are requested to read the Risk Awareness Guide which explains the entire experience.

Visitors receive all the training they need to successfully use the Segway before they explore the park. They are required to listen to a safety briefing and will be fitted up with a compulsory helmet and whistle.

Following the training participants will be responsible for the safe operation of their Segway and for any under 16's that they have signed for. The instructor will be with the group at all times. The instructor will ask all participants if they are happy to continue before the adventure progresses onto public paths.

The Segway route is designed so that the Segway is used only on pre-determined routes along appropriate surfaces and wide pathways. Sections of the route that are off-road (and therefore slightly more challenging) are entirely optional. Visitors are given the option to avoid these routes when the session comes to them.

Visitors who have participated in a previous Segway experience will still be required to participate in the initial training session.

All riders will sign a Risk Awareness Disclaimer understanding that inappropriate riding of the Segway will result in their session ending immediately. It also covers the rule that anyone under the influence of alcohol or drugs will not be permitted to ride a Segway.

The training session is designed to ensure all participants are competent in the use of the Segway before we progress to park trails.

Instructors (at all times) will carry a park radio and mobile phone.

There is vehicular access to all the trails we use in case of an emergency.

Description of the Hazard – Impact with Third Party

Risk Rating ↘
LOW MEDIUM HIGH

Who? Park Visitors, Segway Participants and Staff

Information Purposes Only

After the training session in our private area we will take participants on an instructor-led experience on an authorised pre-determined route.

There are two routes available and detailed on the Company's emergency response card. This card is included in a later section. It details a Coastal Expedition and Wildlife Expedition.

Control Measures

The tour will only progress onto park paths once the instructor deems that his or her group is competent in the use of the Segway PT. Riders will be assessed on their ability to control their speed and move forward, backward, left and right; as well as stepping on and off the PT platform.

It is important to note that learning to ride a Segway PT is not difficult and is a safe activity when participants follow the safety briefing offered to them at the start of their tour. However, the first part of the tour will be speed-limited to 3mph. The maximum authorised speed toward the end of the tour is operator (never participant) controlled and will not exceed 9mph in wet weather conditions and 13mph in dry weather conditions.

The instructor will also limit speed as necessary if any areas of the park are busy.

Safety signage is located along the tour route - including no entry and directional arrows.

Riders will be required to follow the Rider Etiquette section of the Risk Awareness Guide which refers to basic rules.

Description of the Hazard – Special Evening Events

Risk Rating

LOW **MEDIUM** HIGH

Who? Segway Participants and Staff

Information Purposes Only

Adventure Segway hosts various seasonal events throughout the year. There are two events that include a riding section in the dark – Glide and Glow and Wonder Nights.

After the normal training session in our private area we will take participants on a guided tour on authorised pre-determined trails illuminated by white high visibility LED lights.

Control Measures

The session will start with the normal training session and all previous control measures will apply. There are some additional considerations to assess when riding in the dark.

The session will only progress onto designated park paths once the instructor deems that his or her group are all competent in the use of the Segway PT. Riders will be assessed on their ability to control their speed and move forward, backward, left and right; as well as stepping on and off the PT platform.

Lighting

(excludes effects lights and only considers the minimum lighting required for safety)

The private practice area, Segway Skills assault course and access path will be illuminated with lighting designed to sufficiently illuminate the area whilst participants are training at the start of the session.

Participants will progress onto park paths. The journey will be illuminated by lighting attached to the transporter itself, including bright white LED headlights and a red rear light.

We use multiple lighting units so one light unit failure will not cause a blackout. Adventure Segway will retain additional lighting units and batteries so that any technical problem can be replaced as soon as participants return to base camp.

Other Considerations

Fluorescent tape will be used to highlight the edges to the Segway access path and other sufficient obstacles.

The emergency access response card includes the new route.

Speed

Speed will not exceed 10mph during evening sessions.

Weather

Evening sessions will not operate in severe inclement weather including but not limited to heavy rain, high winds, thunder and lightning, snow or icy conditions. We will also not operate in temperatures below -5c, as per manufacture guidelines.

Description of the Hazard – Use of Segway PT by Staff

Risk Rating ↘
LOW MEDIUM HIGH

Who? Staff Only

Control Measures

The risks of riding a Segway alone are greater but can be mitigated with proper preparation. A planned route or area, with an estimated return time should be logged with a park ranger.

The staff member should also carry a means of mobile communication with them. Members of staff must always carry a basic first aid kit with them in case of minor injury along the route.

Under no circumstances will employees or visitors explore the park on unauthorised paths/routes. This activity is only permitted by authorisation from Adventure Mountain with adequate supervision.

Description of the Hazard – Emergency Response Card

Risk Rating



LOW

MEDIUM

HIGH

Who?

Staff Only

Please see Route Map download.