Speed Governor

Speed Adjusting Downhill Longboard Add-On
Downhill longboarders get to speeds up to 70 mph. The record is 90.

Traditional braking methods become dangerous.

Limit maximum speed without user actuation
Market
Enable new riders
and allow professionals to explore
Cost in line with other accessories

- **Truck**: $30 - $50
- **Wheels**: $30 - $100
- **Deck**: $100 - $200
- **Speed Governor**: $75
User needs

Maneuverable
provides same control of board

Product Weight
<10 lbs.
User needs

**Maneuverable**
provides same control of board

**Adjustable**
set maximum speed

**Product Weight**
<10 lbs.

**Speed Increments**
min. 5 mph increments
User needs

**Maneuverable**
- provides same control of board

**Adjustable**
- set maximum speed

**Retrofittable**
- works with existing boards

**Product Weight**
- <10 lbs.

**Speed Increments**
- min. 5 mph increments

**Ground Clearance**
- > 2 in.
Key technology defines our risks

Feasibility
Can we construct a predictable product with repeatable results?

Scalability
Can we reach performance requirements within size constraints?
Generator/Resistive Braking

- Rotor RPM
- Voltage Output
- Resistor
- "Wheel"
- Generator
Generator/Resistive Braking

**Feasible.** Easily turned on/off, no significant temperature build up, existing resistance control methods (i.e. PWM).

**Scalable.** Capable of keeping in the form factor
On-board User Testing: target speed & adjustability

Design Controller: Variable resistor with desired speed profile

Heat Dissipation: heat sink geometry