RISK AREAS AFTER SKETCH MODEL

Feasibility

Practicality

Desirability
Feasibility

Establishing alarm thresholds: Data capture & transmission:

Demonstrated by mock-up
Financial:

Price Range: $500-$1000

3.7 M Show & race horses
Capture ~10%

Practicality

Battery size & life:
Benchmarked power requirements

Sensor resolution:
Identified COTS sensors
Do our customers want this?

Interviewed 9 potential customers

“Great idea...part of the growing field of preventative medicine”
- Dr. Mark Salemi
  President of NYC Veterinary Medical Association in 2002
## EQUISENSE PRODUCT CONTRACT

**Product Description:** Real time Equine leg injury detection system

**Intended Customer:** Race and show horse owners, trainers, and riders

**Market:** Equestrian Sports and Recreation Industry

<table>
<thead>
<tr>
<th>Customer Need</th>
<th>Product Attributes</th>
<th>Engineering Specifications</th>
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<tbody>
<tr>
<td>Horse performs normally when wearing apparatus</td>
<td>Weight</td>
<td>Total weight of each boot less than 15oz.</td>
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<tr>
<td></td>
<td>Size</td>
<td>No more than ¼ inch deviation from normal profile of splint boot</td>
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<tr>
<td>Provides reliable injury information</td>
<td>Temperature sensor sensitivity</td>
<td>Detect 1 degree (C) temperature differential</td>
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<tr>
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<td>Pressure sensor sensitivity</td>
<td>Detect at least 10% swelling based on pressure changes from circumference increase</td>
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<tr>
<td>Alerts rider at onset of injury</td>
<td>Wireless communication signal strength</td>
<td>Rider can receive signal from boots at least 10 feet away</td>
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<tr>
<td>Alerts rider when horse is warmed up for exercise</td>
<td>Temperature sensor sensitivity</td>
<td>Detect 1 degree (C) temperature differential</td>
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<tr>
<td>Operates in variety of equine sports conditions</td>
<td>Maximum loading</td>
<td>Withstands 1kN impact force</td>
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<td>Water resistance</td>
<td>Water resistant to 10m depth</td>
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<td>Operates for duration of training session</td>
<td>Battery life</td>
<td>Battery life of at least 4 hours</td>
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NEXT STEPS

• Optimizing electronics
• Advanced diagnostics
• Alerting device
• Warm-up detection
• Live testing
• Algorithm refinement