

P8001 - Balance Training Bike - 2/15/08

Most Important



Least Important

| Specification Number | Customer Need Number | Design Specification | Importance To Customer | Unit of Measure | Marginal Value | Ideal Value | Test |
|----------------------|----------------------|--|------------------------|-----------------|----------------|-------------|---|
| 1 | 3,10,22, 7 | Safe | 9 | Binary | Pass | Pass | Failure Modes and Effects Analysis - Counteract foreseeable hazards |
| 2 | 1,2,5,16,18,19 | Tilt Range | 9 | Degrees | 0 - 8 | 0 - 15 | Usable range to be tested on final prototype |
| 3 | 1,2,5,16,18,19 | Levels of Tilt | 9 | Levels | 3 | Infinite | |
| 4 | 10,22 | Upright Locked Position | 9 | Binary | Pass | Pass | Force test |
| 5 | 1,2,5,16,18,19 | Tilt Resistance Range | 9 | Lbs | 0 - 150 | 0 to >150 | |
| 6 | 3,21 | Auditory Feedback of Tilt | 9 | Decibels | 50 - 80 | 25 - 80 | |
| 7 | 4, 17 | Non-alternating Handle Bars | 9 | Binary | Pass | Pass | |
| 8 | 10, 12 | Seat Height Range (pedal to seat) | 9 | Inches | 27 - 34 | <27 to >34 | |
| 9 | 10, 13 | Handlebar Height (vertical dist. - seat to handlebar) | 9 | Inches | 9 - 10 | <9 to >10 | |
| 10 | 10, 14 | Handlebar Reach (horizontal dist. - seat to handlebar) | 9 | Inches | 15 - 19 | <15 to >19 | |
| 11 | 10 | Cross member height | 9 | Inches | 0 - 24 | <12 | |
| 12 | 13 | Bike Capacity | 9 | Lbs | 90 - 300 | 90 - 300 | |
| 13 | 3,21 | Visual Feedback of Tilt | 3 | Binary | Fail | Pass | Survey (size of light / brightness) |
| 14 | 7, 14 | Portability - Force needed to transport bike | 3 | Lbs | 35 | <35 | Conduct live test on final prototype with PT |
| 15 | 11 | Pedal Resistance | 3 | Ft-Lbs | Constant | Variable | |
| 16 | 9, 12 | Seat Size | 9 | Inches | >10 | 10 - 12 | |
| 17 | 6 | Adjustment Tools | 3 | - | Basic Tools | Hand | |
| 18 | 7, 20 | Force needed to bring patient to Upright Locked Position | 9 | Lbs | 51 | <51 | |
| 19 | 6 | Service Intervals | 1 | Frequency | Once/year | Never | |
| 20 | 15 | Color | 1 | Binary | Pass | Pass | Survey |