### 2.009 Purple Team Product Contract

**Product Description:** MP4ever – *It runs forever ... as long as you do.*

**Intended Customers:** Music-loving joggers

**Market:** Jogging accessories

<table>
<thead>
<tr>
<th>MP4ever Product Contract Data Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Needs</strong></td>
</tr>
</tbody>
</table>
| For use by jogger, never has to replace battery. | 60 minute jog: walk 25% of jog, mp3 player will keep playing | Minimum player current: 0.11A  
Maximum current spike: 0.26A  
88% joggers use mp3 player <10min when not jogging - 59% use less than 5min |
| Overall aesthetics must compete with market leaders | Simple, clean exterior | Appealing total shape and look  
Material feel must be fit appeal to high percentage of market  
High quality fit and finish |
| User-friendly interface | Simple button interface, easy to identify buttons without looking | Three large primary buttons  
Play/Pause button in middle  
Scrolling buttons at either end of play/pause. |
| Must not interfere with jogging rhythm | Minimize magnet impact with tube ends, damp motion of moving parts | 5200 Gauss primary power magnet  
2.9 pull lbs magnet used at either end  
2.1N force observed on magnet "down" cycle  
22.3N maximum force observed by jogger |
| Cost must be competitive with current mp3 players | Low-cost circuitry, minimal high-cost parts/machining | circuit parts under $25 total  
mass production model injection molded  
prototype machined from delrin and ABS  
low cost 512MB mp3 player used as base |
| Casing must be easy to handle/wear | Ergonomically designed casing, user-friendly shape, lightweight | 0.4 lbs (0.181 kg) weight  
main body 3" diameter Disk  
magnet tube 1inch diameter 5 inch length  
total thickness 1.125 inches |
| Circuitry must withstand rigors of jogging | Isolation of circuitry from casing | 22.3N maximum system force  
4.6 inch magnet travel distance |
| Retains charge while being stored for months. | High-capacity capacitor, small rechargeable battery | Battery with minimum 4 year shelf life  
No idle mode current flow battery to capacitor, capacitor to battery |
| Memory retention must not fail | Isolation of magnet from mp3 memory | 0.001 inch thick CU foil used to insulate  
min. dist. 0.25" magnet to circuit board |