# Market Requirements Document (MRD)

Perfect Purifiers LLC – Next-Gen HEPA Air Purifier Line

**1. Market Problem**

* Despite widespread use, current HEPA air purifiers fall short in several critical areas. Customers have reported dissatisfaction due to:
* Inability to remove VOCs, viruses, and odors
* Ozone emissions that pose health and environmental risks
* High maintenance needs and filter replacement costs
* Noisy operation, unsuitable for homes and offices
* Limited purification coverage, especially in large rooms

These issues create a clear opportunity to improve the existing product offering and meet a growing demand for safer, quieter, and more efficient air purification.

**2. Target Market Segment**

* ***Primary Buyers:*** Households with 2+ adults (age 35+)
* ***Demographics:*** Eco-conscious families, urban dwellers, health-focused professionals
* ***Exclusions:*** Single-parent homes and 25–29 age group (least likely to purchase)
* ***Geographies:*** U.S. metropolitan areas with seasonal air quality issues
* ***Use Cases:*** Residential living rooms, bedrooms, small offices, healthcare clinics

**3. Market Opportunity**

* Global air purifier market expected to grow from $7B in 2023 to $13.4B by 2030
* Projected CAGR of 11.4%
* Current competitors (e.g., Honeywell, Daikin, Donaldson) fail to offer an all-in-one solution

**PP LLC expects:**

* 25% revenue growth
* 10% market expansion
* 50%+ reduction in product returns

**4. High-Level Requirements**

| Requirement Category | Market Need Addressed | Priority |
| --- | --- | --- |
| Odor/VOC Removal | Customers want air that smells clean and is free of VOCs | High |
| Noise Reduction | Current purifiers are too loud for home/office use | High |
| Ozone-Free Operation | Ozone emissions are a deal-breaker for many consumers | High |
| Low Maintenance | Mold/bacteria risk if not cleaned regularly | Medium |
| Affordable Filters | High replacement cost is a barrier to long-term ownership | High |
| Extended Filter Life | Customers dislike annual replacement cycles | Medium |
| Increased Coverage | Purifiers only serve small areas — customers want more | High |
| Smart Add-ons | Optional freshener & cleaning agent for a premium feel | Medium |

**5. Competitive Differentiators**

* Dual HEPA + Air Freshening
* Ozone-free and 50% quieter
* Lower lifetime ownership cost
* Filter lasts 1.5 years
* Modular options for multiple budgets (Basic, Better, Ultimate models)

**6. Voice of the Customer Summary**

* Survey feedback shows:
* Safety, efficiency, and odor elimination are top priorities
* Cost, convenience, and air coverage follow closely
* Customers view maintenance and filter cost as major friction points

**7. Revenue and Growth Expectations**

1. $200,000 annual return projected (for two years post-launch)
2. Internal Rate of Return (IRR): 200%+
3. Launching in summer season (June) to capitalize on air quality concerns