Wand for Electostatic Sprayer Industrial Design Proposal

Work Samples

Gerd Schmieta is an independent industrial design expert and founder of Boston-based design studio SchmietaPlus. Gerd focuses on industrial design and user experience for medical devices, life science and consumer products, spanning dozens of diverse brands and industries. As a former design leader at IDEO, Gerd "lives" the multidisciplinary design process that delivers successful product designs. As a well-respected hands-on designer, Gerd's passion and understanding of human factors and ergonomics give him a unique advantage in developing user-friendly products. Most recently, Gerd's design solution for Vitality's GlowCaps, a medication adherence product, received an prestigious IDSA award.

Before graduating from IDEO, Gerd worked as design leader and project manager building a rich portfolio of work that includes design language developments, furniture, branding and life science projects.

Gerd studied graphic design and received his diploma in industrial design at Hamburg Academy of Fine Arts, Germany. He came to the U.S. in 1994 to pursue his advanced studies at Cranbrook Academy of Art where he earned his MFA. With countless patents in the U.S. and Europe his work has been widely recognized in exhibitions, awards programs and in the press.



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Project Overview

Assumptions / Project Specifications / Brief

- Ensure that the wand is comfortable to hold for extended periods of use.
- Ensure that the trigger can be easily held for extended periods without the operator's hand cramping
- Angle of the nozzle relative to the body of the wand and the trigger to allow operators to comfortably spray typical targets (generally between seat height to just overhead)
- Placement of the aim indicator feature.
- Choice of method to ground the operator to assist the electrostatic effect.
- Placement of the controls (trigger, trigger safety, electorstatic on/off) and indicators (battery level, connection status to companion app, as well as indicators for each control) to be easily seen / used
- Ambidextrous design
- Design will use existing (preliminary) component layout.
- Handoff of SolidWorks design-intent database (all outside surfaces, no wall thickness and domes etc)

Design exploration and concept developement. Duration 3.5 weeks TBD, cost \$21,000

Activities include:

- Receive CAD files and review component layout. Explore component layout optimization with engineering partner.
- Explore industrial design options, create early volume studies in CAD.
- Have 3 form studies printed. Evaluate within team, select one general shape for further refinement.
- Create three design concepts. present three concepts as 3D renderings.
- Review and choose one direction or a combination concepts/details) for further refinement.
- Share CAD with ME team. Discuss potential manufacturing approaches and challenges.
- Refine one concept, explore detail solutions. Review with team.
- Finalize "intermediate" design concept, handoff of industrial design intent SolidWorks CAD to engineering partner. This industrial design concept will not show final graphics and colors. Draft will be implemented only on main outside surfaces.

Refinement. design support, marketing support, Duration 2 weeks TBD, cost \$10,000

- Create 3D "final" renderings, explore graphics and color options.
- Support prototyping effort with CMF and graphics documentation.
- Create 3D "final" renderings, explore graphics and color options.

Invoicing

Design fees will be invoiced by-weekly per hour. Hourly rate: \$160/hr