

Trevor Grey Williams

MECHANICAL DESIGN ENGINEER

Passionate and inventive engineering professional with a broad range of experiences centering on concept-to-consumer development of consumer products, laboratory/medical devices, electro-mechanical assemblies, and single-use consumables.

SolidWorks, Pro/E	Manual and CNC Machining	3D Printing	FDA, USP, ISO
FEA, CFD, PDM	Injection Molding	Silicone Tooling	CSA, CE
Motion Simulation	Sheet Fabrication	PCB Design	IQ/OQ/PQ
CAM, G-code	Brazing and Welding	Motor Drives	Stage Gate, FMEA
Photo Rendering	Metal Casting, MIM	Membrane Overlay	DOE, DAQ
ANSI Y14.5 GD&T	Wire and Sinker EDM	UX/UI Design	Data Analysis
DFM, DFA, Lean	Coatings, Heat Treating	EMI Suppression	Patents and IP

EXPERIENCE

Un-Named Start Up (in stealth mode) (2015-now)
CTO – Start up – Medical Devices

- Product planning, business canvas, user studies, MVP design, funding pitches, commercial partner collaboration.
- Electro-mechanical system engineering and polymer consumable design.

Thermo Fisher Scientific (ThermoFisher.com) Logan, UT (2012-2015)
Design Engineer – Medical Devices – Single Use BioProduction (Pharmaceuticals)

- Research, design, and development of new products and technologies for single-use BioProduction industry.
- Development/validation/documentation within an ISO 13485 quality system for class III medical devices.
- Injection molded part design utilizing gamma stable plastics (FDA / USP class VI / ISO 10993 compliant).
- Rapid concept prototyping, CFD / FEA / moldflow, vendor auditing, part qualification.

TGWMS LLC (BluDuc.com) Kennesaw, Ga (2007-2012)
Lead Designer – Various Markets

- Contract-based mechanical/electrical engineering, product conceptualization, and IP documentation
- Design and manufacture of world’s most powerful BB/pellet gun (FullyAutomaticAirgun.com)

Omni International (Omni-Inc.com) Kennesaw, Ga (2001-2010)
Senior Mechanical Engineer – Laboratory Devices and Consumables

- Led new product development of disposable plastic assemblies and electro-mechanical laboratory devices.
- Directed industrial design of all new products.
- Managed product testing, certification compliance, tooling procurement, and assembly processes.
- Initiated new GD&T print standards and paperless ECR, approval, and storage procedures.

EDUCATION

Southern Polytechnic State University Marietta, Ga (1998-2003)

- Bachelor of Science MET; 3.8GPA magna cum laude
- SAE Super Mileage Vehicle Competition (2002 frame design & build, 2003 lead vehicle design & build)

INTERESTS

- Travel, mountain biking, product invention, firearms, camper vans, ATVs, photography
- Custom bicycle frames fillet brazed on my home-built alignment jigs (still riding a frame I built in the 90’s, no failures)
- Home shop machinist: I own a lathe, mill, and MIG welder and have fabricated countless parts.
- Multiple patent submissions and marketing on my own inventions; from home goods to firearms

Project examples available at TGWMS.com. References and printable design portfolio available upon request.