

BITAR 

Machine Design, LLC

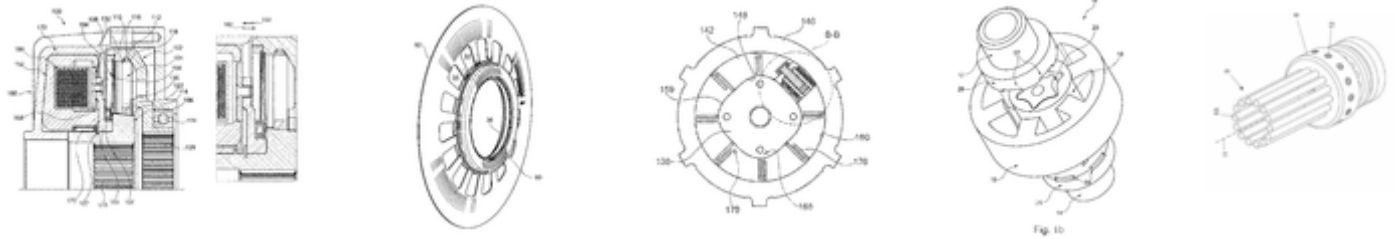
Introduction

Who is Justin Bitar:

- Charlotte Native
- UNCC Grad – BS Mechanical Engineering
- 8 yrs. engineering experience in the automotive industry
 - ~5yrs Advanced Product Development – Schaeffler Group, USA
 - Multiple Patent Applications (US, DE, WO)
 - 4 Patents Granted
 - US9816568B2
 - US20160131202A1
 - US10302153B2
 - US10989191B2
- 2 yrs. Consumer Product Development
 - Specializing in Design for Injection Molding
- Entrepreneur
 - Founded Bitar Machine Design, LLC in 2019



Contact:
jbitar@bitarmachinedesign.com



Service Offering

Product Development/Engineering:

- Concept Development
 - CAD Modeling
 - Electronics Design
 - Structural Analysis – FEA
 - Computational Fluid Dynamics - future service offering
- Detailed Development
 - Material Analysis
 - Electronics Analysis
 - Design for Manufacturing
 - Detailed Mfg Drawings
 - Bill of Materials
- Prototype Construction
 - Prototype Testing
- Patent Services
- Manufacturing
 - Value-Engineering/Cost Reductive Design
 - Beta-Prototype Construction
 - Referrals
 - Collaborative work with Mfgr

Patent Services/Drawings:

- Non-legal Cursory Prior-Art Searches
- Referrals
- Patent Drawings
 - Provisional
 - Utility
 - Design – future service offering
- 35 USC 102 & 103 Circumvention
 - Design-Around

Additional Services:

- Business Consultation
- Marketing Firm Referrals
- Graphic Design

Service Pricing

Product Development/Engineering: For Direct Clients:

- Hourly rate at \$65-\$75/hr
- Meetings and other non-engineering tasks billed at \$65/hr
- Invoiced through Square
 - 3.5% fee for credit card payment
 - 1.0% + \$1 fee for ACH payment

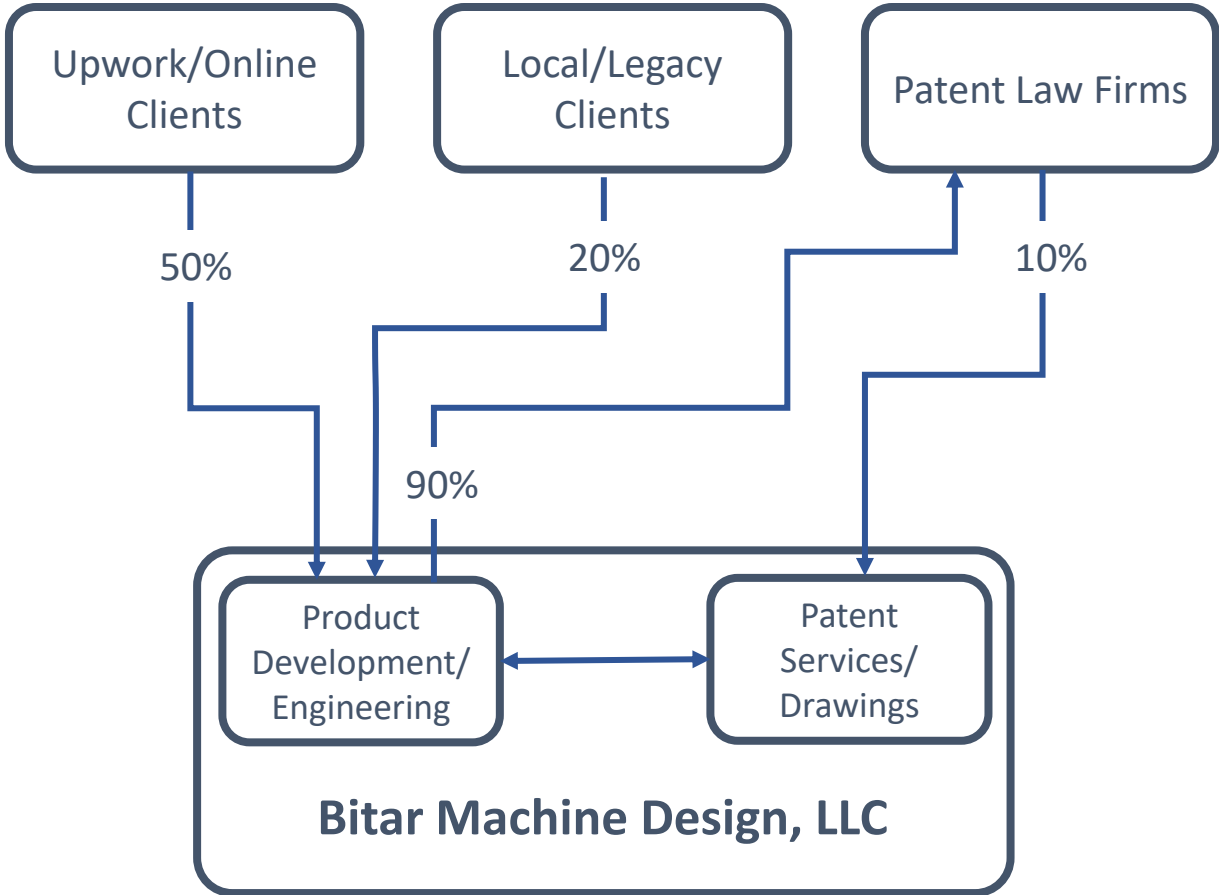
SERVICES	QTY	RATE	SUBTOTAL
ENGINEERING BILLABLE HOURS	0	\$ 75.00	\$ -
CAD MODELING	0	\$ 75.00	\$ -
DETAIL DESIGN	0	\$ 75.00	\$ -
PROTOTYPING/BUILD	0	\$ 75.00	\$ -
TESTING	0	\$ 75.00	\$ -
DRAWINGS	0	\$ 75.00	\$ -
CAM DEVELOPMENT	0	\$ 75.00	\$ -
NON-ENGINEERING BILLABLE HOURS	0	\$ 50.00	\$ -
MEETINGS: CLIENT/SUPLIER	0	\$ 50.00	\$ -
PROJECT PLANNING	0	\$ 50.00	\$ -
PROCUREMENT/PURCHASING	0	\$ 50.00	\$ -

Patent Services/Drawings:

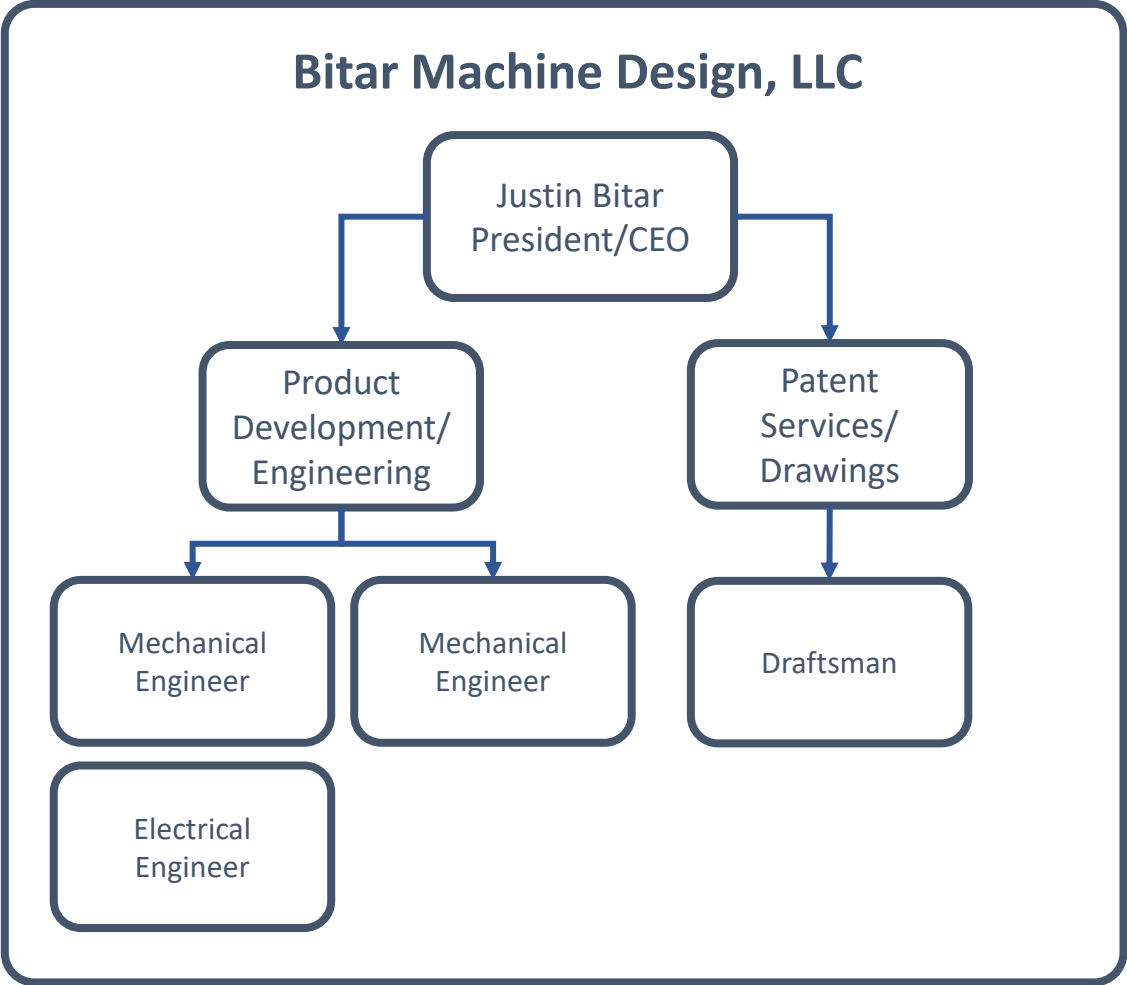
- **Non-legal Cursory Prior-Art Searches**
 - \$300 flat fee (2 hours of searching)
- **Patent Drawings**
 - Dependent on complexity of drawings
 - Billed hourly at \$75/hr
 - No fees for revisions
 - CAD Models (STEP, SLDPRT) greatly reduce drawings hours
 - Provisional Drawing Package
 - Average \$300-500
 - Utility Drawing Package
 - Average \$500-1,500
 - Design Patent Drawing Package
 - Dependent on complexity of drawings
 - Billed hourly at \$75/hr
 - No fees for revisions
 - CAD Models (STEP, SLDPRT) greatly reduce drawings hours
- **35 USC 102 & 103 Circumvention – “Design-Around”**
 - Billed as a product development project
 - Ask about Design-Around project examples



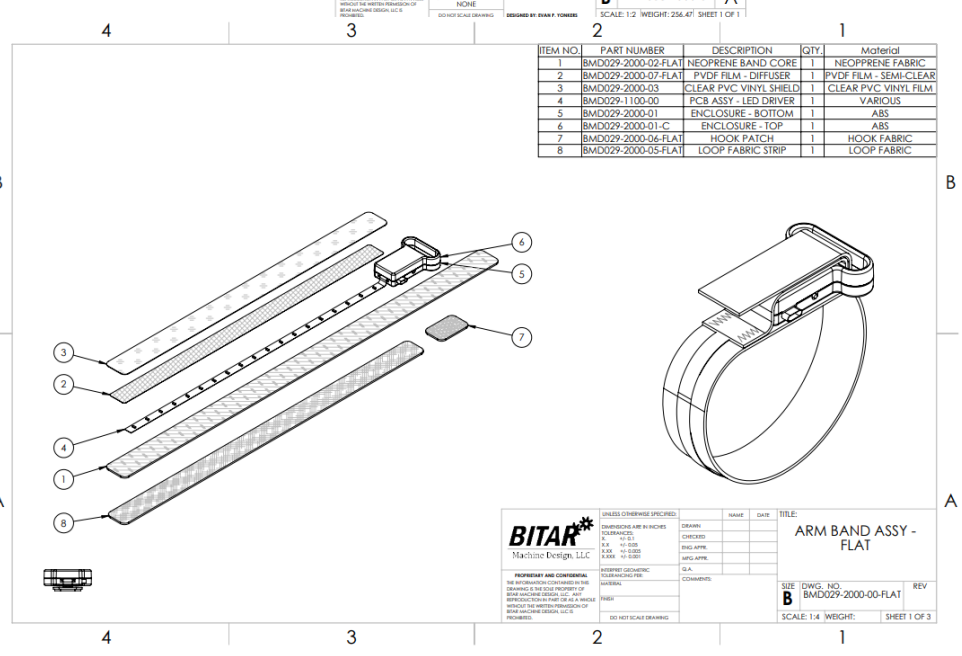
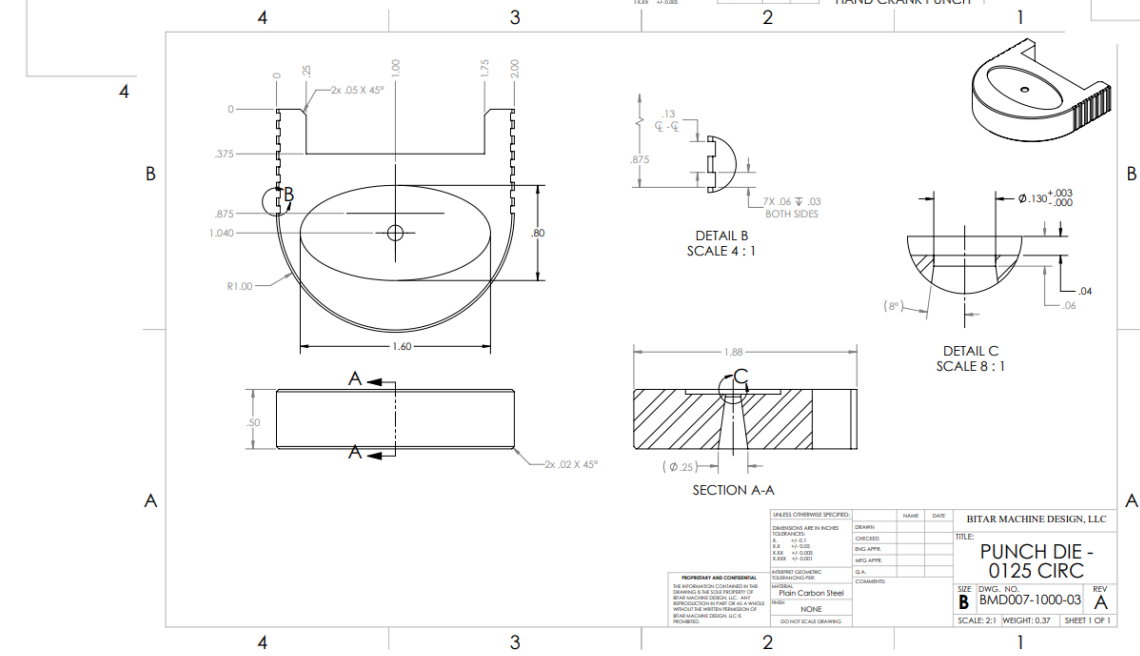
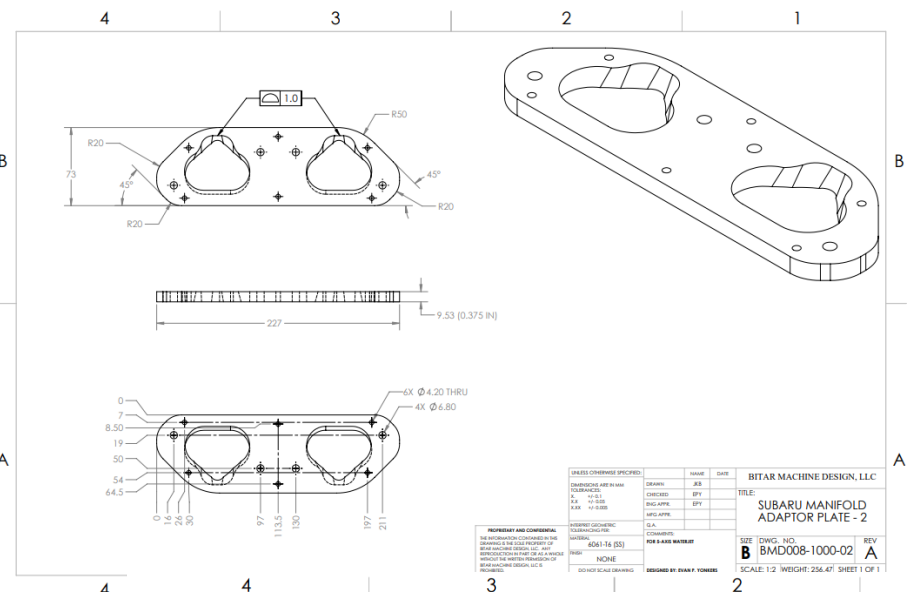
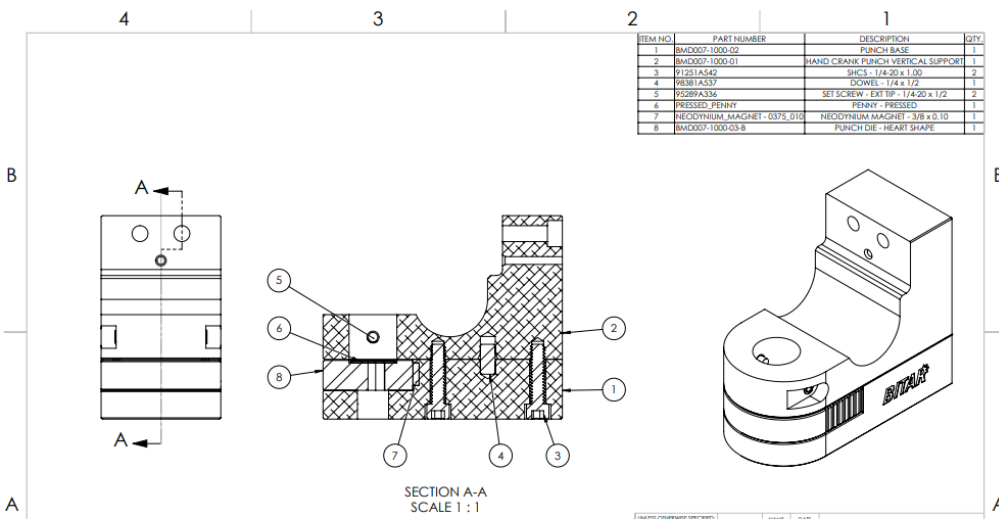
Business Model - Current



Business Organization Chart - Current



Work Examples – Manufacturing Drawings



Work Examples – Patent Drawings

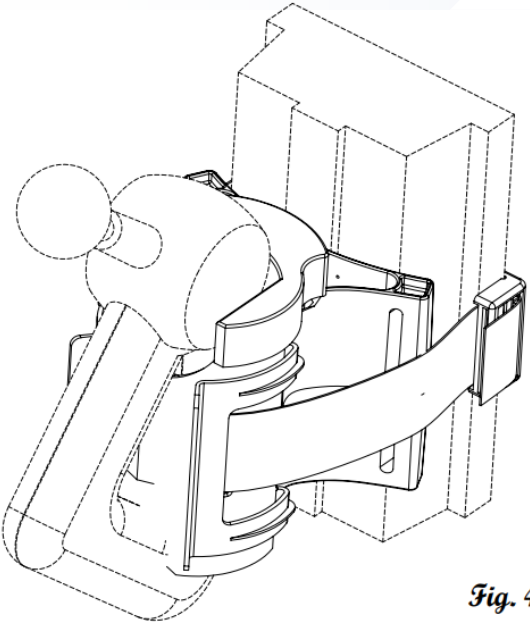


Fig. 4

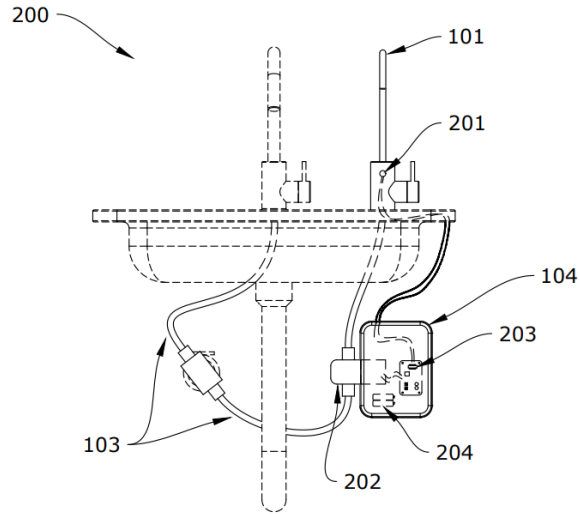


Fig. 2

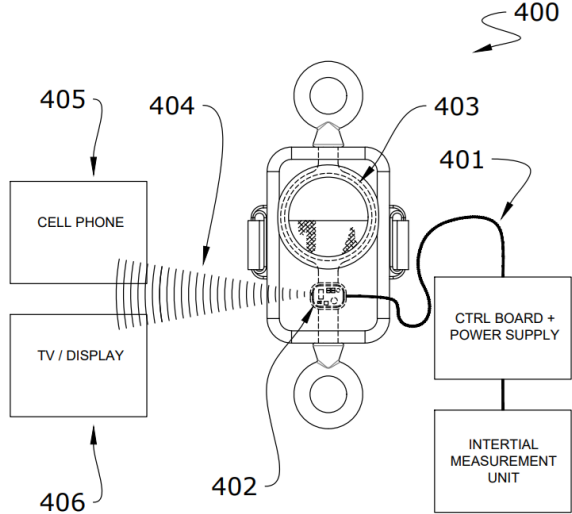


Fig. 4

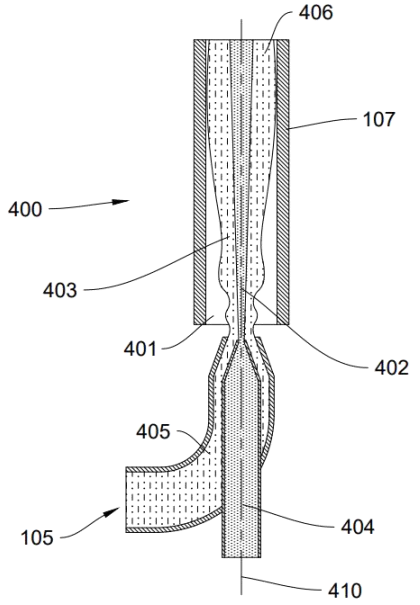


Fig. 4

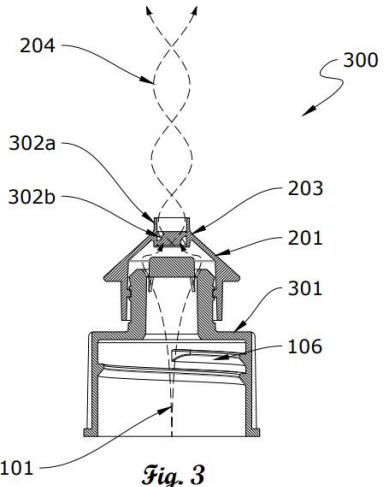


Fig. 3

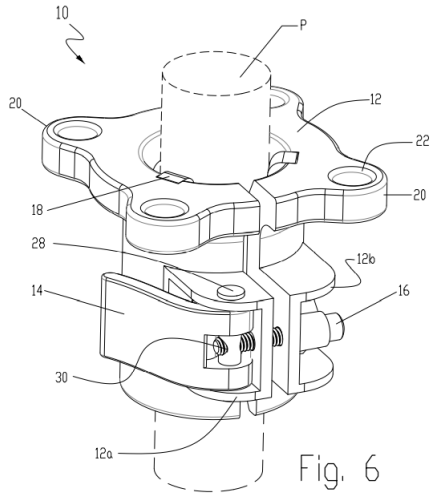


Fig. 6

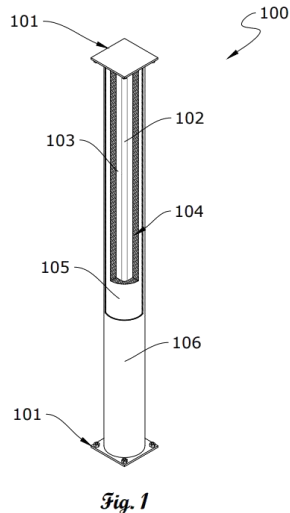


Fig. 1

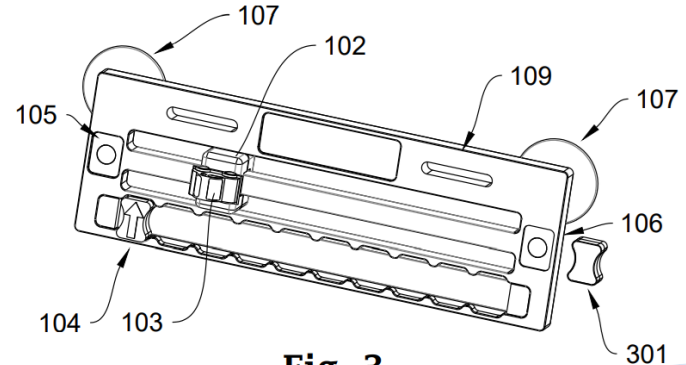
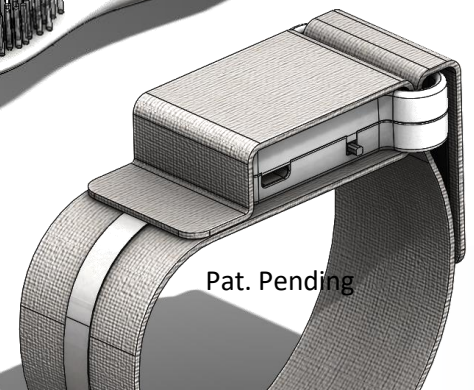
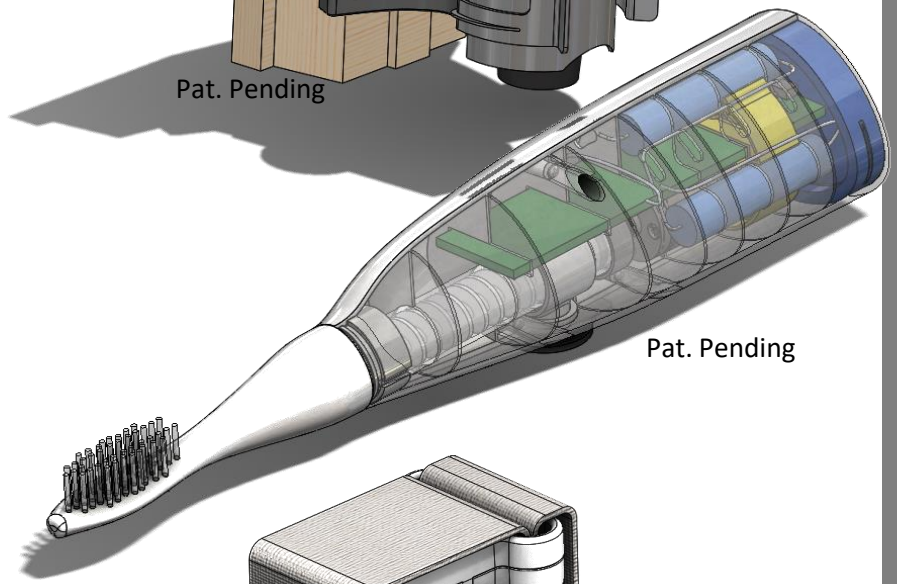
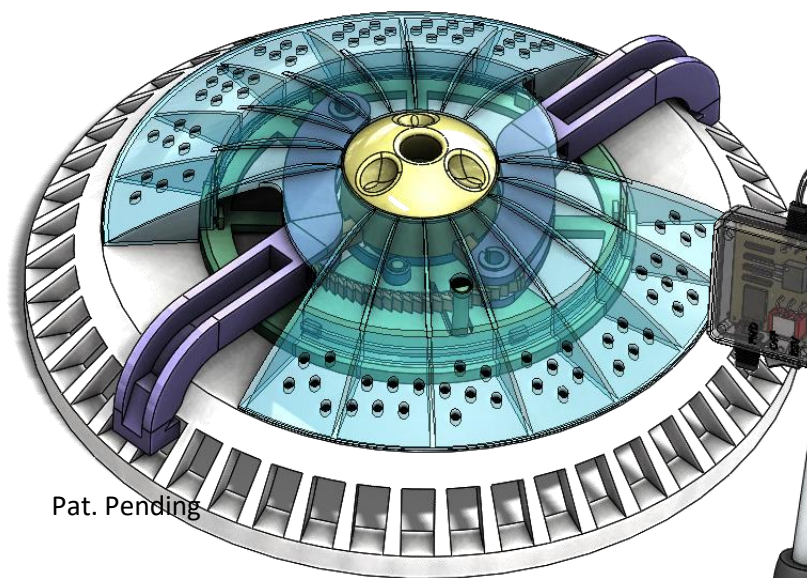
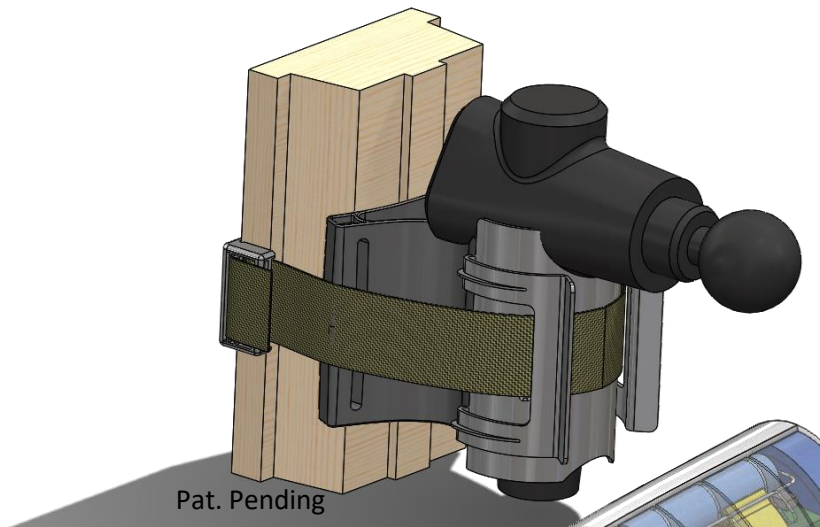
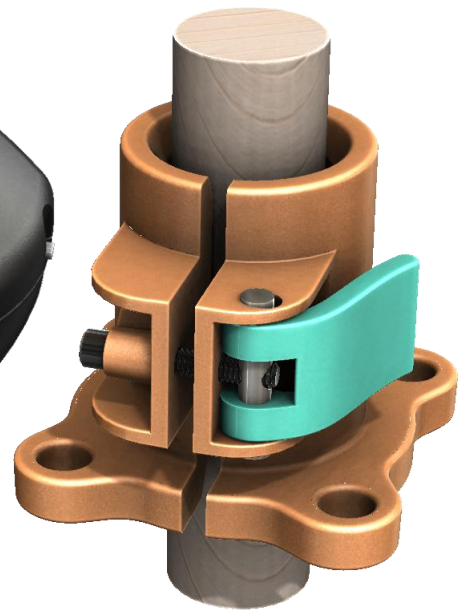
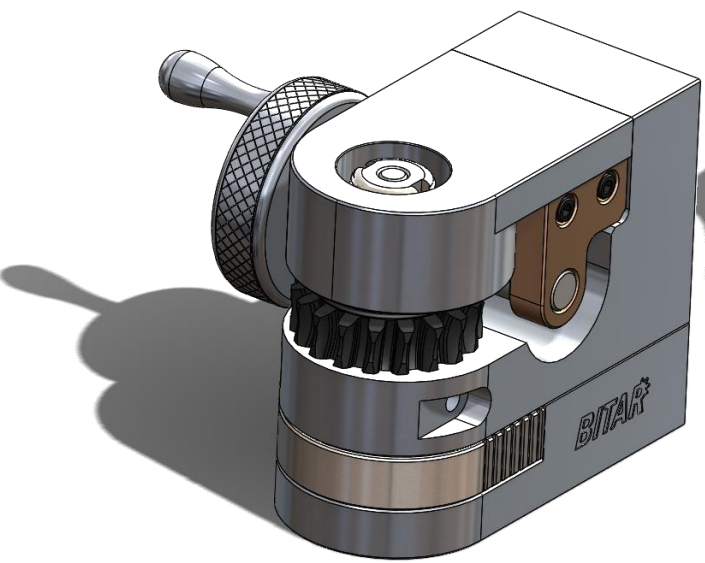


Fig. 3

Work Examples – CAD Modeling – General Product Design



Pat. Pending

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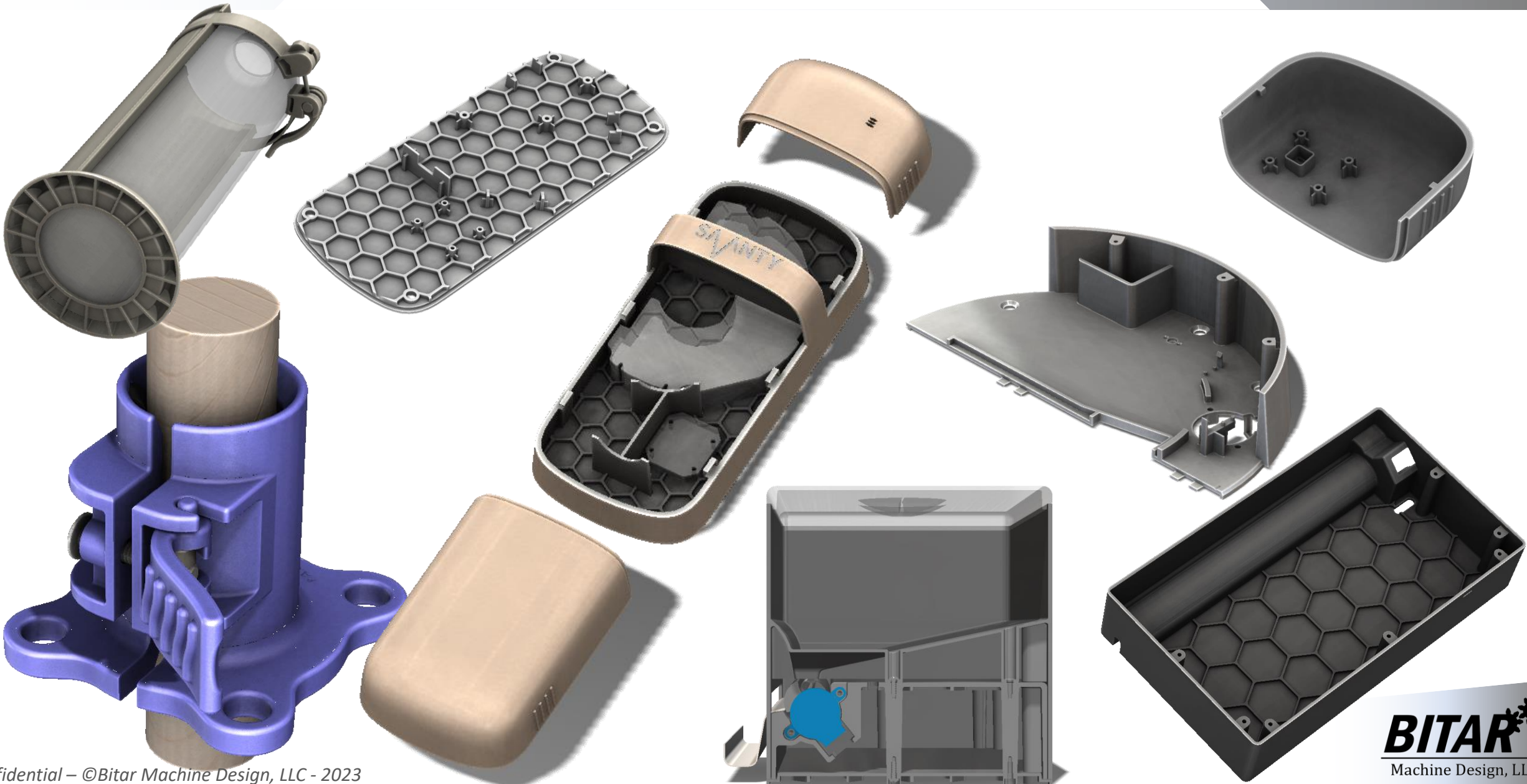
Pat. Pending

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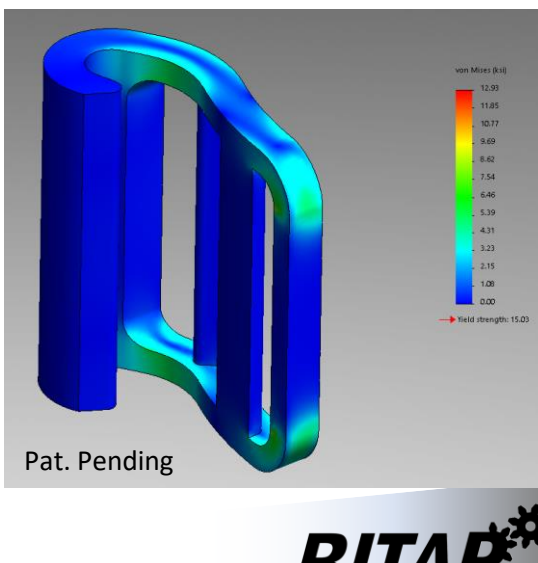
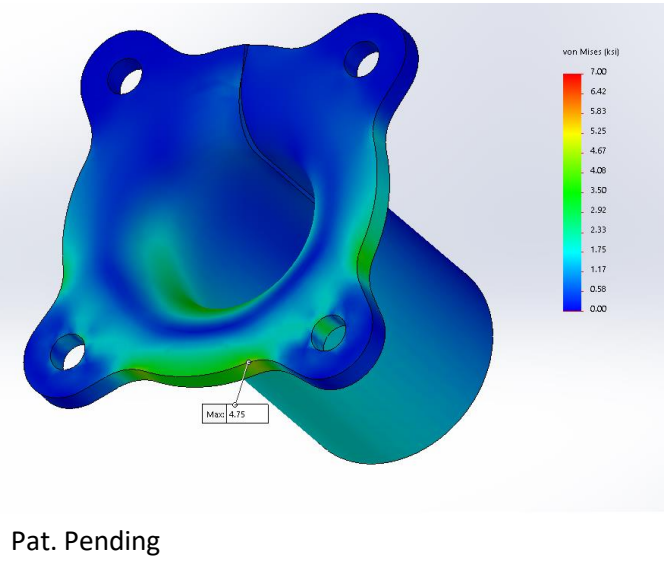
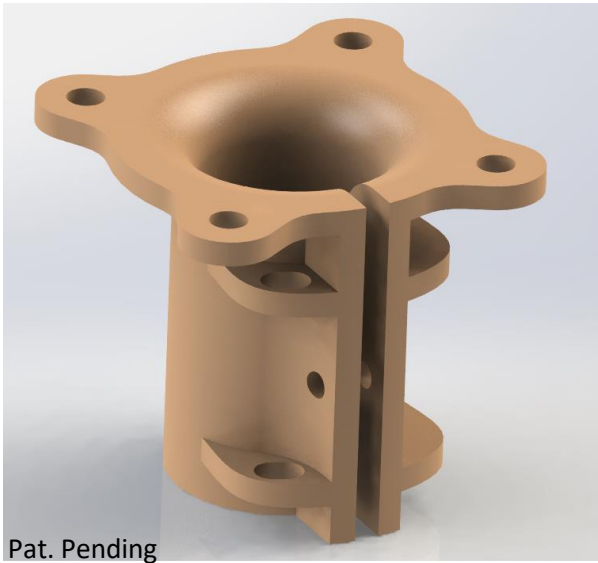
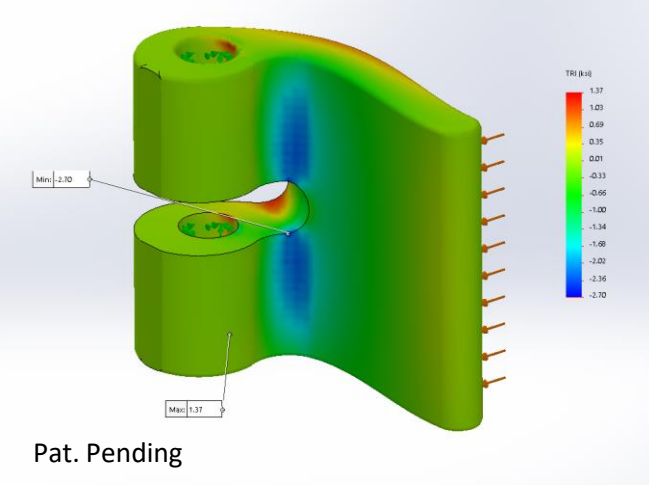
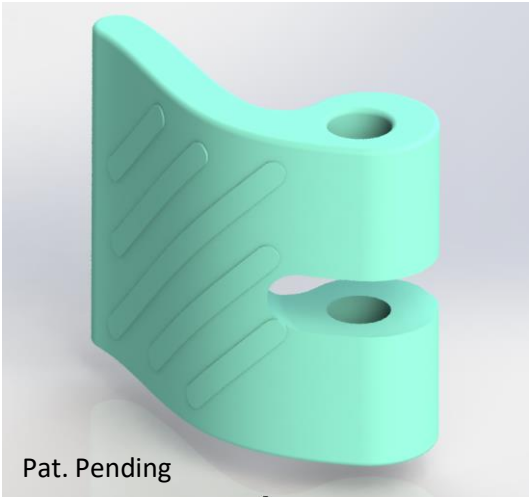
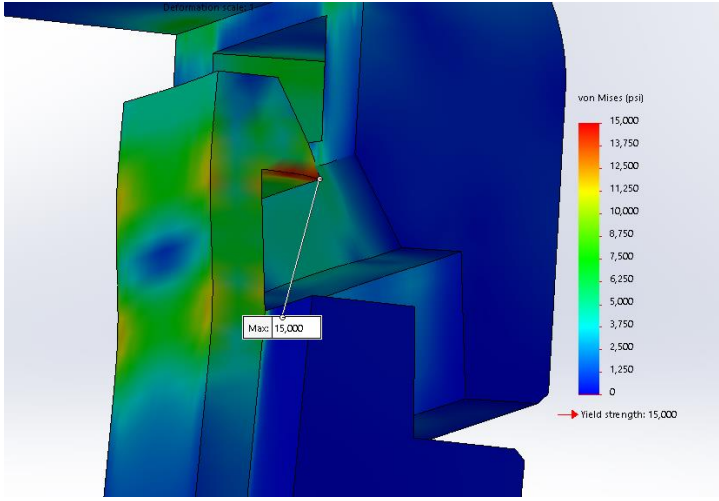
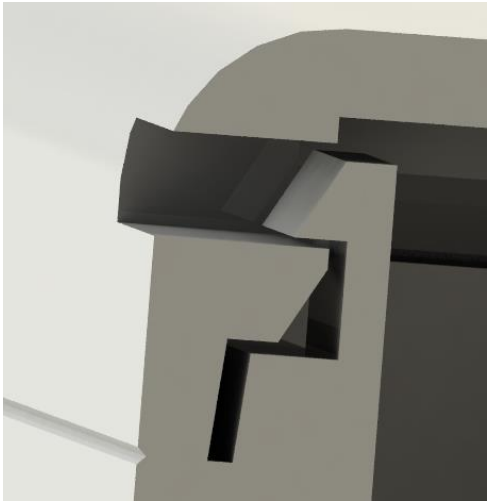
Pat. Pending

Pat. Pending

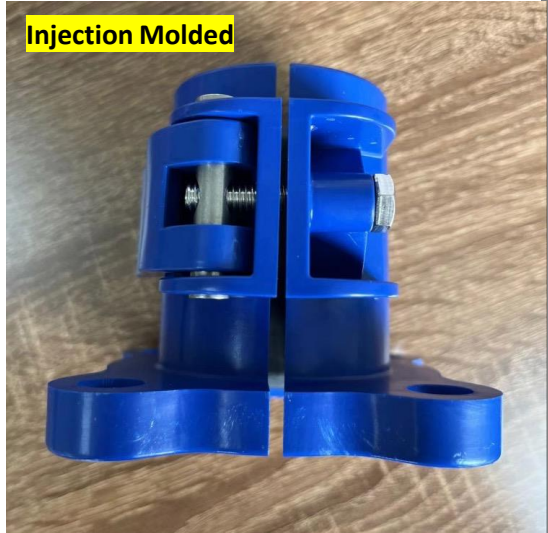
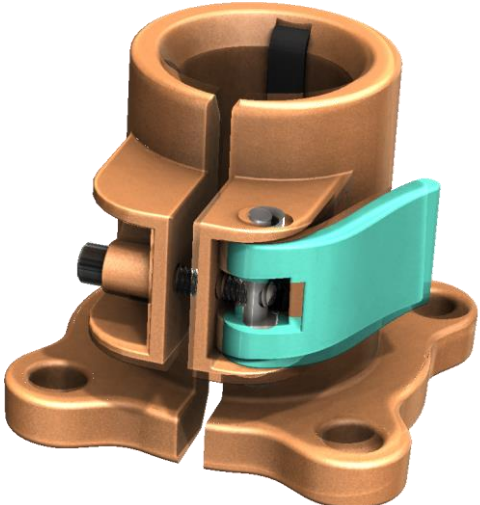
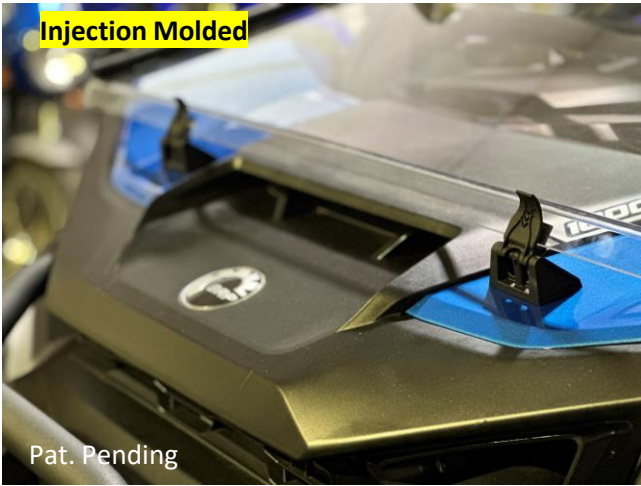
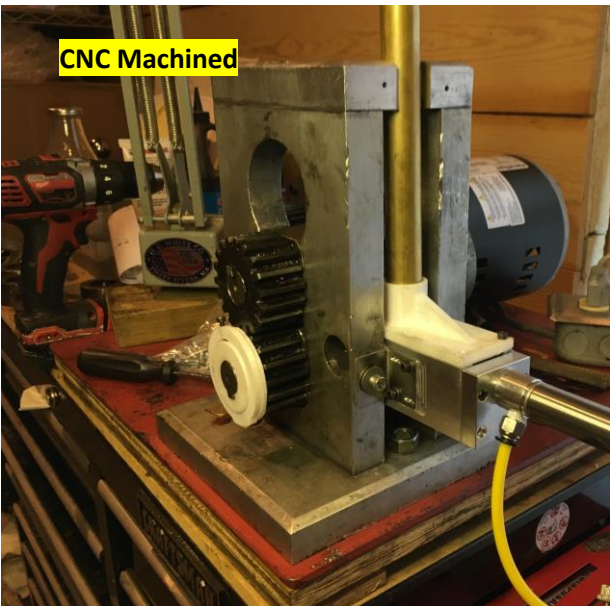
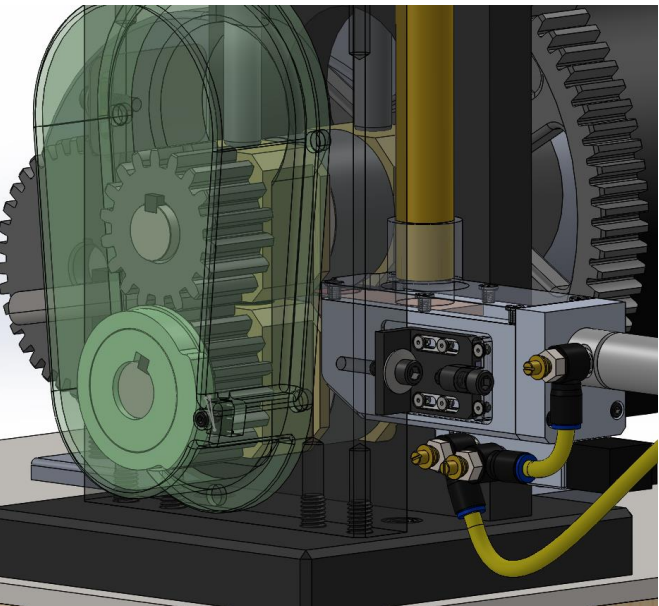
Work Examples – CAD Modeling – Design for Injection Molding



Work Examples – FEA and Engineering Analysis



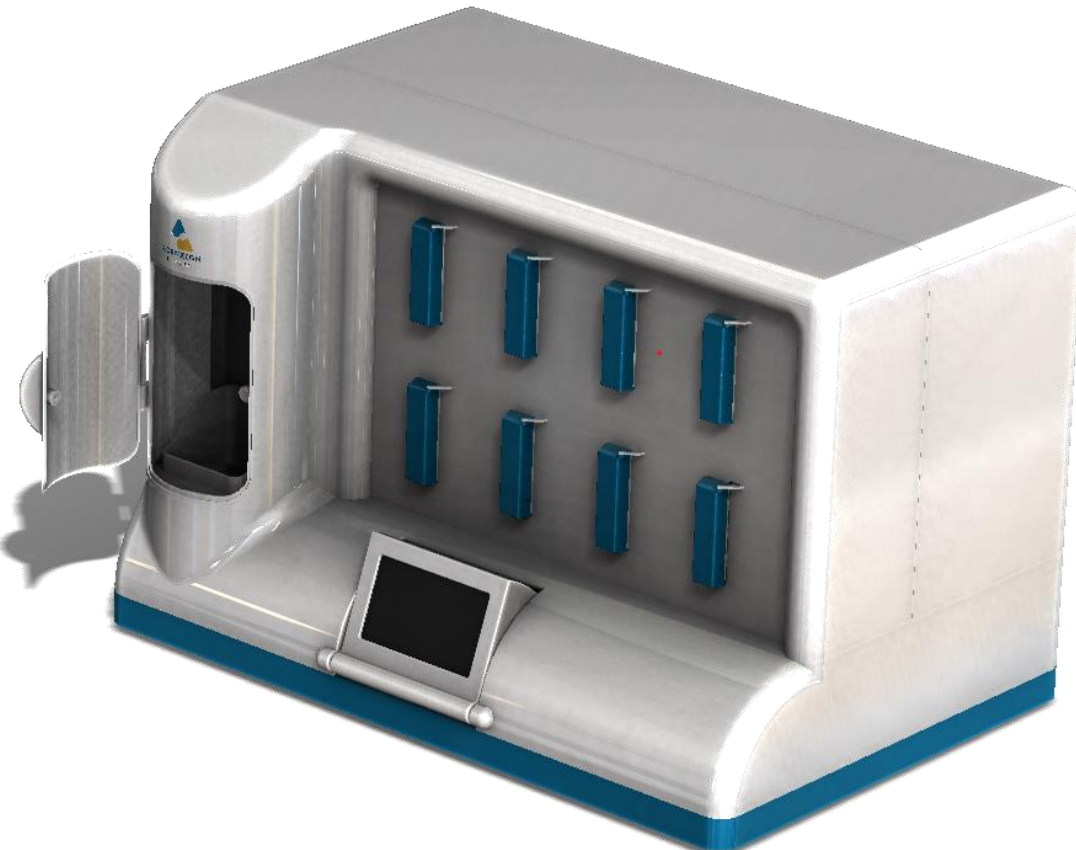
Work Examples – Prototypes – Concept to Creation



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Work Examples – Prototypes – Concept to Creation

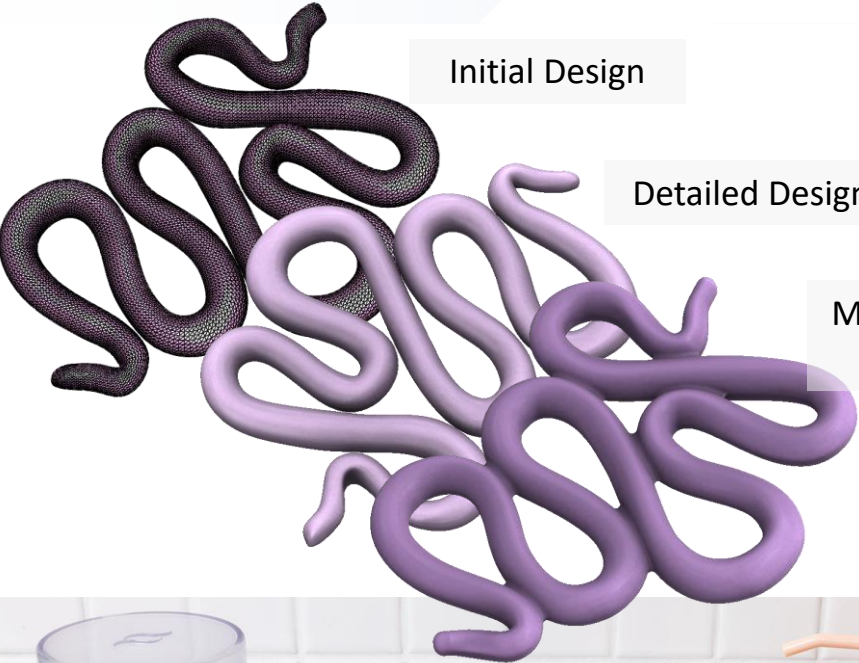


Work Examples – Prototypes – Concept to Creation

Initial Design

Detailed Design

Manufacturing Design



Domestically-sourced Injection Mold



Original hand-made product



Injection molded product

