

Welcome to

Advanced Textiles

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Rhino3D for Marine Canvas and More

Adam Penner

Owner of AP Consulting and Technical Services



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What We'll Cover

Agenda

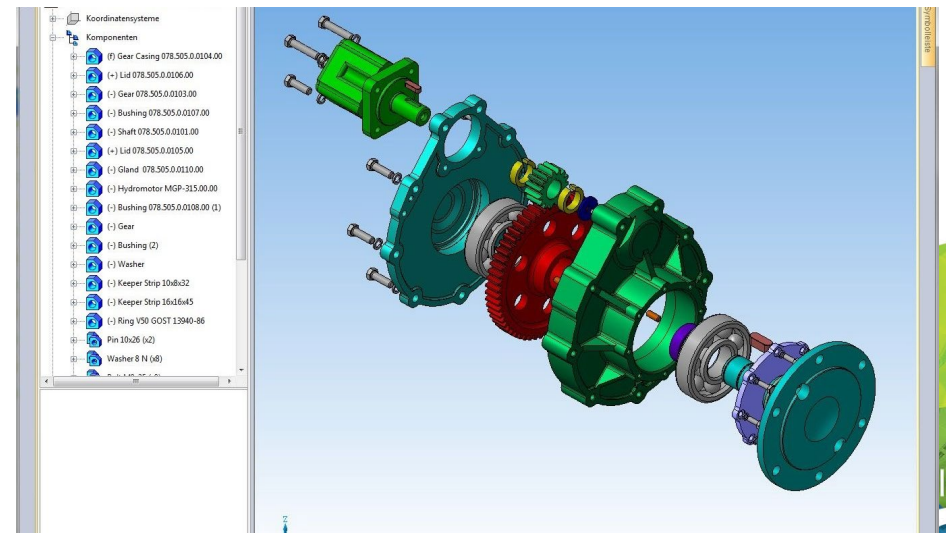
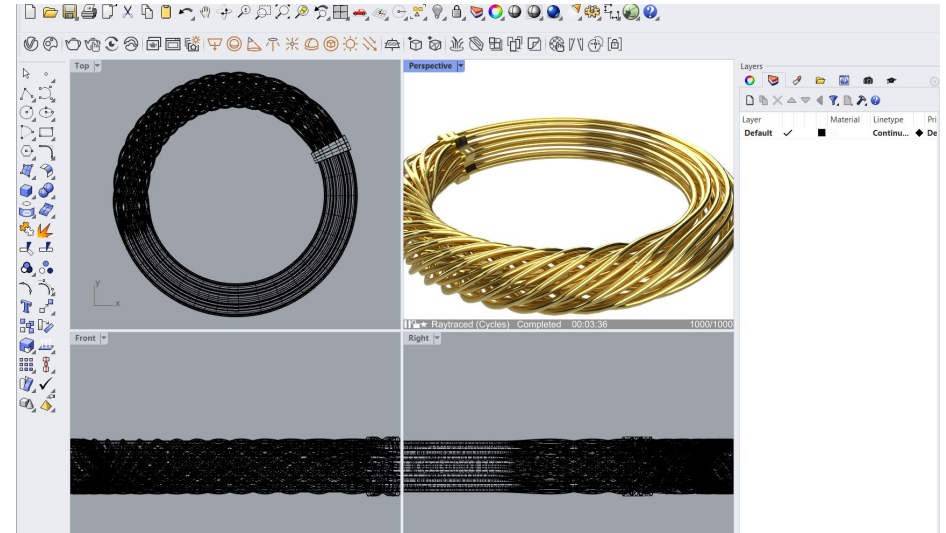
- What is Rhino3D
- Advantages and Disadvantages
- Customization and Automation
- Learning Curve and Resources
- Q&A

Learning Goals

- Understanding of what Rhino3D is
- A basic grasp of workflow and learning curve
- Resources for further learning and implementation

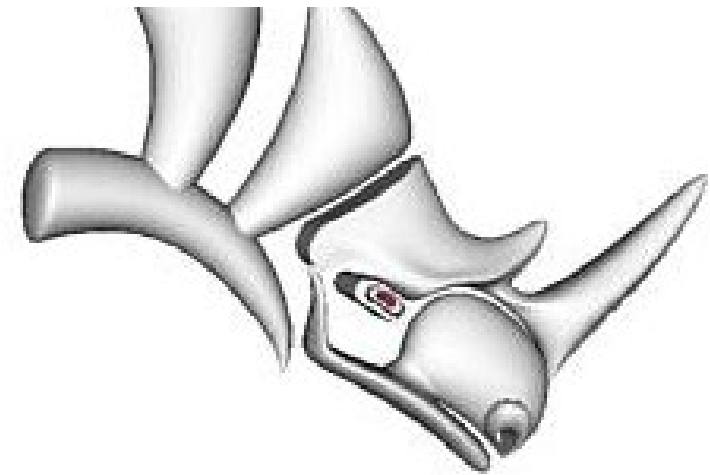
What is Computer Aided Design(CAD)?

- Purpose:
 - Used for creating precise drawings or technical illustrations.
 - Streamlines the design process, making it faster and more efficient.
- Industries:
 - Engineering
 - Architecture
 - Marine Canvas (our focus today)
 - And many more



Popular CAD Software

- AutoCAD
- SolidWorks
- Rhino3D (Today's Focus)
- CATIA
- Siemens NX
- Creo Parametric
- Fusion 360
- SketchUp
- Revit

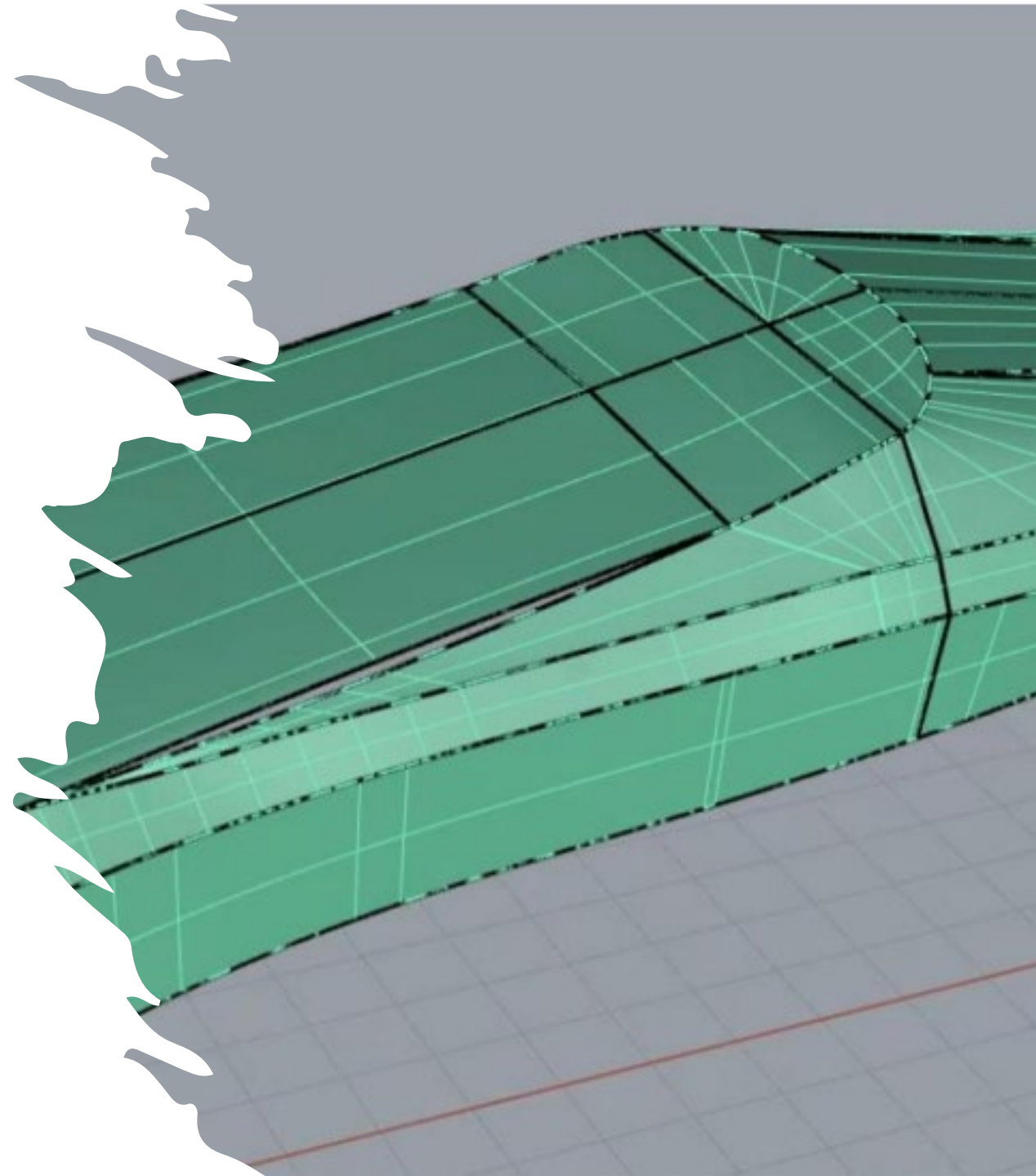


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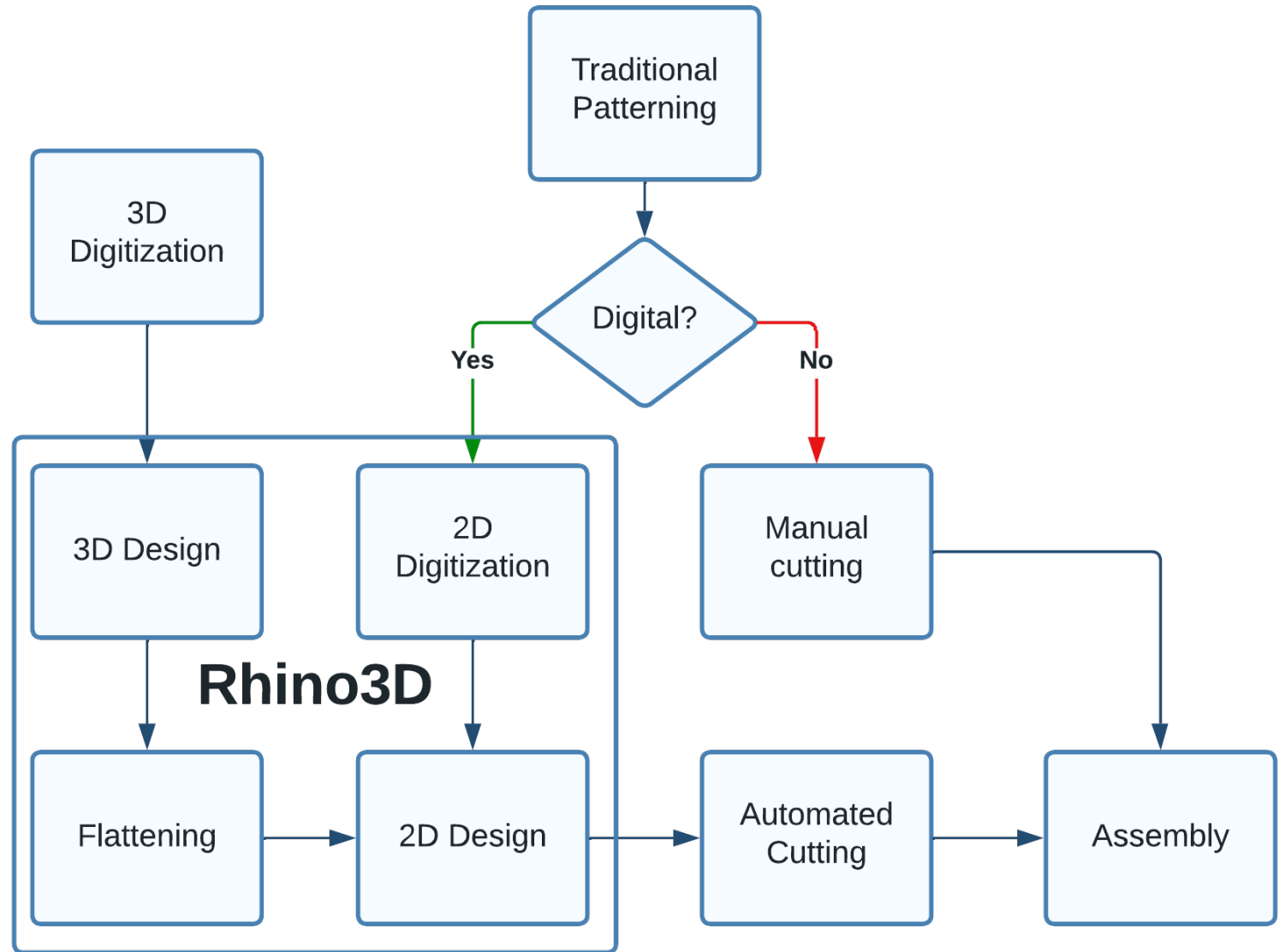
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Rhino3D by Robert McNeel and Associates

- **Versatility:** From marine canvas to architecture, Rhino3D can be applied in a wide range of industries.
- **User-Friendly Interface:** Designed with a minimal learning curve, making it accessible for beginners.
- **Precision:** Offers extremely accurate modeling capabilities.
- **Customization:** Python and Grasshopper integration allows for custom plugins and automated workflows.
- **Affordability:** Competitive pricing makes it a viable option for both small and large businesses.
- **Rich Ecosystem:** Abundant plugins and an active community offer extra functionalities and support.



How Its Used In Marine Canvas



Advantages



Changing Workforce Skills



Workplace flexibility



Repeatability, Scalability, Reliability



Work Management Software Integration



Ease of Use and Safety



Speed



Repeatability, Scalability, Reliability

- Machines don't call in sick
- Machines don't quit without notice
- Machines don't take breaks
- Machines cut the exact same every time
- Same design work required to make 1 or 100

Work Management Software Integration

- Get real-time data on your business
- Seamless interaction between departments and employees
- Cut down on mistakes
- Link to an online store to reach more customers



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Ease of Use and Safety

Safety is good
for employees
and business!

Less physically
demanding

Can be started
and stopped
easily



Speed

Other Benefits

Digital Archiving and Backup:

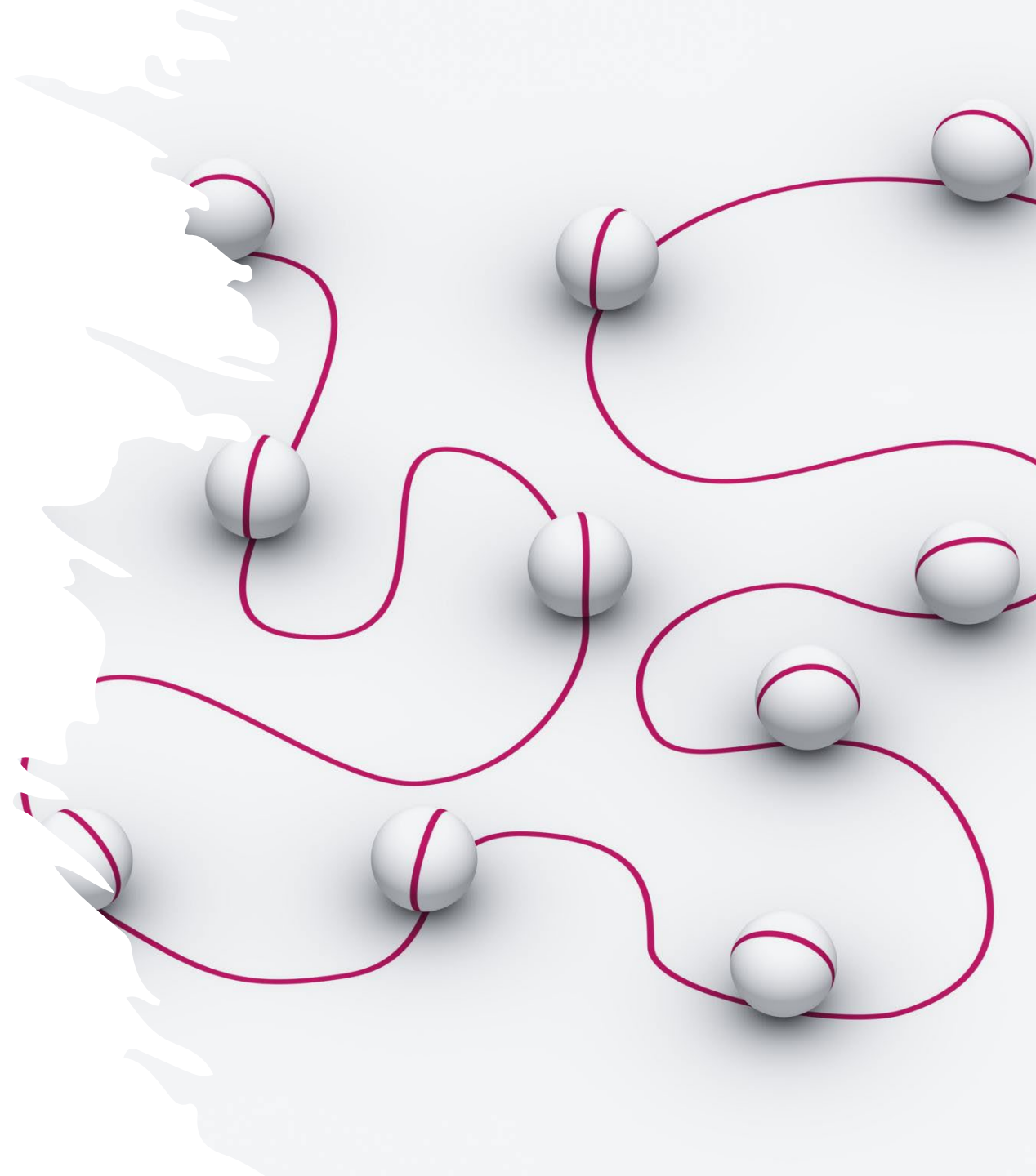
- Store patterns digitally, ensuring they're safe from physical harm.
- Easy retrieval and modification of old patterns.

Collaboration and Sharing:

- Share patterns and designs easily with colleagues or clients.
- Collaborate in real-time with team members across different locations.

Continuous Updates and Innovations:

- Benefit from regular software updates and improvements.
- Access to a growing community of users who share plugins and techniques.



Challenges

LEARNING CURVE

CAPITAL INVESTMENT

NEW PROCEDURES

BUSINESS ADAPTION

SECURITY CONCERNS

PHYSICAL INTERACTION

Good Will Hunting at Harvard

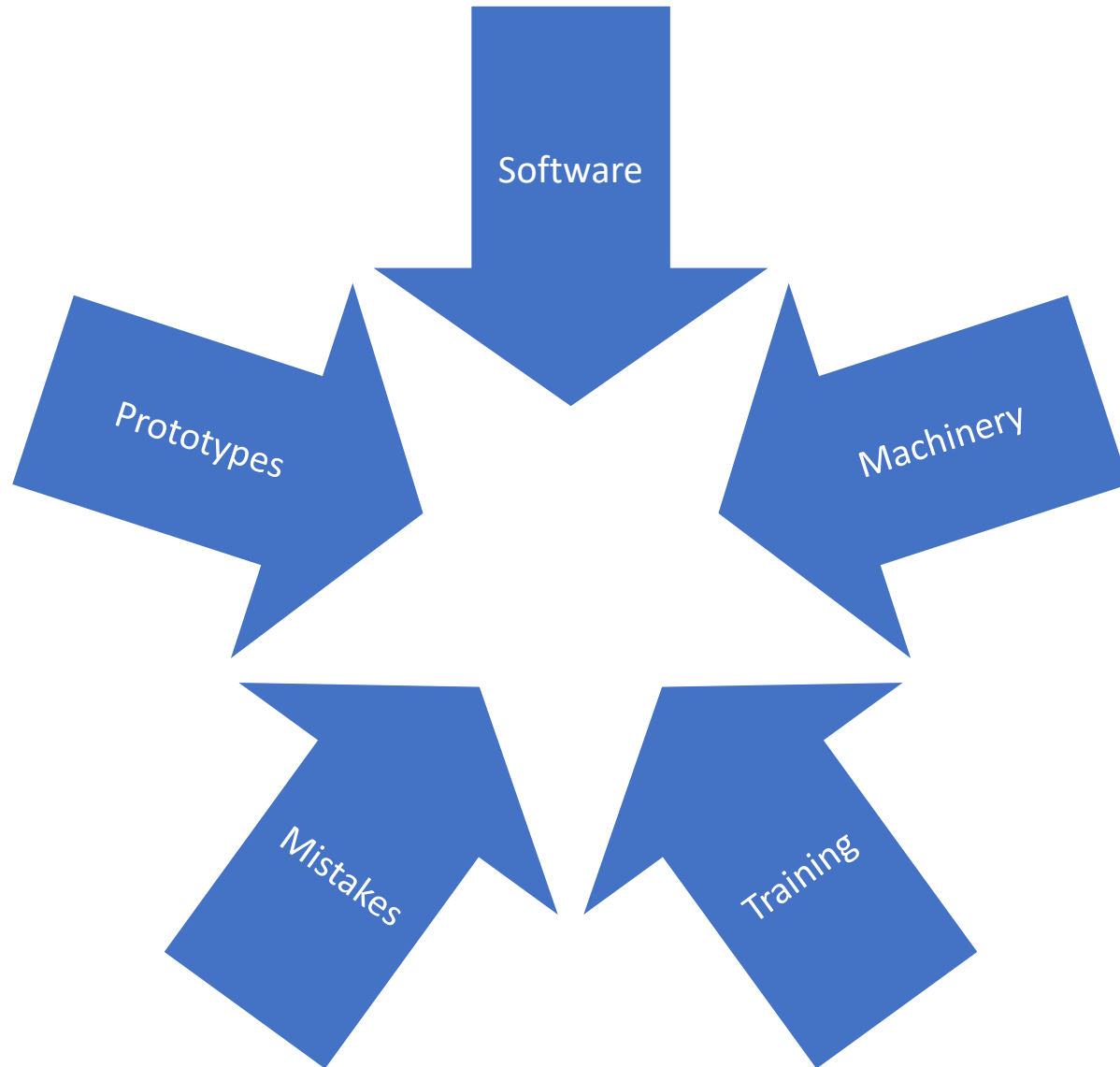


"You dropped a hundred and fifty grand on an education you coulda' picked up for a dollar fifty in late charges at the Public Library."

Learning Curve

- Online Resources
- In-person and remote classes
- Individualized Training

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Treat it as an investment



Mitigate the risks



Buy nice or buy twice

New Procedures



DEVELOPING NEW
PROCEDURES TAKES
TIME



STAFF AND
MANAGEMENT NEED
TO "BUY IN"



CHANGE IS HARD



ONGOING TRAINING
AND SUPPORT



Business

- Return on Investment needs to be there
- Estimating and pricing might change
- New opportunities
- Identifying efficiencies and inefficiencies
- Changes to customer interactions



Automation and Customization

aut viam inveniam aut faciam.

I will either find a way, or make one.

- Hannibal



“I choose a lazy person to do a hard job. Because a lazy person will find an easy way to do it.”

Bill Gates

Take Inspiration From What You
Already Do



Take
Inspiration
From What
You Already
Do

Latest and greatest power tools

Organization

Right tool for the job

Mastery Through Practice

Build quick Jigs and setups for repetitive tasks

Customization

Collaboration and Learning

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Anaheim, California

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