What is IDDOV?

IDENTIFY | DEFINE | DEVELOP | OPTIMIZE | VERIFY

IDDOV
a methodical approach to product development that ensures customer satisfaction and a robust design

IDD… to understand customers and develop solutions to best meet consumer and company needs

…OV to ensure products are robust and will perform consistently for our customers and consumers

Proactive application of statistical tools for product development quality and performance

Components of IDDOV

I	**IDENTIFY**	Identify the opportunity and product plan
D	**DEFINE**	Define the requirements needed to achieve Critical to Quality performance
D	**DEVELOP**	Develop concepts and models to testing and production trials
O	**OPTIMIZE**	Optimize the design most desirable
V	**VERIFY**	Verify the performance and capability to customer needs and targets

IDENTIFY: Select and scope the project for success

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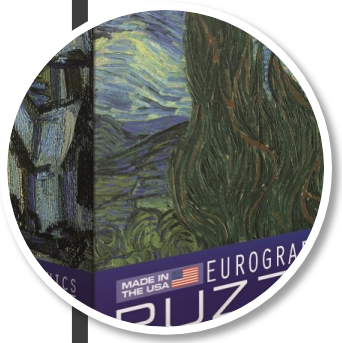
- ☐ Develop an approved business case for the product
- ☐ Develop a customer case (*be* the consumer)
- ☐ Detail the strategic objective
- ☐ Scope the project
- ☐ Define the team and time needed
- ☐ Determine what skill sets and resources are needed to complete the project



DEFINE: Develop a strategy based on customer needs

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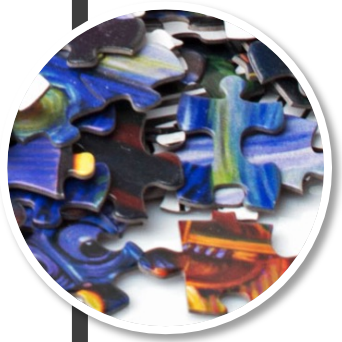
- ☐ Identify the market and customers
- ☐ Experience customer usage
- ☐ Understand what the customer wants and needs
- ☐ Develop a strategy for customer success
- ☐ Define critical measure targets
- ☐ Outline critical to quality requirements



DEVELOP: Based on company and customer needs

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- ☐ **Be creative and use innovation techniques to generate many concept ideas**
- ☐ **Address concept strengths and weaknesses**
- ☐ **Refine and select strong concept(s)**

OPTIMIZE: A robust design delivers consistent performance

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- ☐ **Optimize the design to perform consistently despite aging, use, and manufacturing variation**
- ☐ **Understand product and/or process function**
- ☐ **Understand causes of variability**
- ☐ **Optimize nominal design parameters to maximize robustness**

VERIFY: All requirements are satisfied prior to launch

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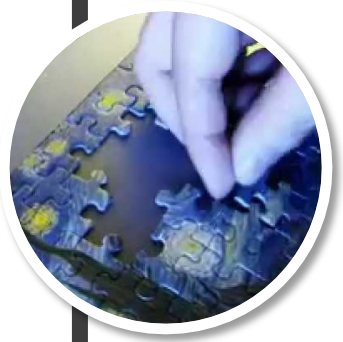
- ☐ Verify that the optimized design satisfies the customer requirements
- ☐ Verify improvement of the optimized design
- ☐ Release with facts and data



Summarizing IDDOV

WHEN TO USE

- New innovation
- Core products
- Voice of the customer
- Innovation "in cycle"
- Historical performance issue
- Design efficiency issues

WHEN NOT TO USE

- A problem with an existing product or process

IDDOV

TYPICAL TOOLS TO USE

- Voice of the Customer
- Thought Process Mapping
- Brainstorming / Brainwriting
- House of Quality / QFD
- Tolerance Design
- Axiomatic Design
- Iterative Pugh Analysis
- P-Diagram
- Taguchi Robust Design
- Various creative techniques