

Case Studies matrix 2020		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Reinventing the See-Saw at BigToys	Designing with Mushrooms at Ecovative	Supporting Life in Space at NASA	Achieving a Single Truth at Eclipse	Irwin Invents the Quick-Grip	From Constraints to Components at Marin Bicycles	A Soft Ride at BikeE	Agile Design of an Agile Fighter at Saab	A Student Team Designs a Prosthetic Arm Using Scrum Methods	Spiral Product Development at Syncromatics	Redesigning the Ceiling Fan at the Florida Solar Energy Center	Unsticking a Concept at MAGICWheels	Designing a Hybrid Car at BMW	All Hot And Nowhere To Go at Q-Drive	Idea to Product in One Day	Multi-duty PC Boards at Sound Devices
Understanding Mechanical Design	Original Design	X															
	Systems, Assemblies and Components			X													
	Variant Design				X												
	Product Decomposition Configuration Design					X	X	X									
Designers, Design Teams and the Design Process	Design Process						X	X	X								
	PLM, Product Lifecycle Management				X												
	Scrum Teams							X	X								
Product and Project Definition	Product Customer Pull	X						X				X	X				
	Planning for Prototyping			X				X									
	Spiral Product Development										X						
	Spec Development and QFD	X	X					X				X			X		
Concept Generation	Function Modeling					X	X						X				
	Morphologies					X	X										
	Concept Design	X										X		X		X	
	Product Architecture												X				
	Analogies		X									X					
Reverse Engineering					X												
Concept Evaluation	Feasibility Assessment	X						X				X					
	Decision Matrix							X									
	Patent Application											X					
	Technology Readiness			X													
	Prototype Testing	X		X								X			X		
Product Generation	Form Generation					X	X										
	Force Flow					X	X										
	Product Refinement											X					
	Designing with Additive Mfg															X	
Product Evaluation	Modeling for Performance Evaluation							X				X			X		
	Managing Variation							X									
	Design for Assembly							X									X
	Design for Sustainability		X														
	Design for Reliability			X													
Design for Additive Mfg															X		