House of Quality

P11552

	Layer Cure Time	Prototype Size	Layer to Layer Registration	X-Y Dimensional Accuracy	X-Y Resolution	Cumulative Z-Dimensional Accuracy	Layer Thickness	Level of Automation	Utilized Photopolymer	Design Documentation	Emergency Stop	Safety Interlock	Light Leakage	Pinch Points	Device Cost	Multiple Resins	DLP System Envelope	Prototype Hardness	Modular Design	Operator Satisfaction
Layer Cure Time		-		-	-															
Prototype Size	-			-	-	-														
Layer to Layer Registration				+																
X-Y Dimensional Accuracy	-	-	+		+															
X-Y Resolution	-	-		+																
Cumulative Z-Dimensional Accuracy		-					+													
Layer Thickness	-					+														
Level of Automation											-									
Utilized Photopolymer											-									
Design Documentation								-												
Emergency Stop								-												
Safety Interlock								-												
Light Leakage									-											
Pinch Points																				
Device Cost		-						-			-	-	-	-						
Multiple Resins									+						-					
DLP System Envelope		-						-												
Prototype Hardness	-																			
Modular Design															-					
Operator Satisfaction								+			+	+	+	+						

Customer Needs	Customer Weights	Layer Cure Time	Prototype Size	Layer to Layer Registration	X-Y Dimensional Accuracy	X-Y Resolution	Cumulative Z-Dim Accuracy	Layer Thickness	Level of Automation	Utilized Photopolymer	Design Documentation	Emergency Stop	Safety Interlock	Light Leakage	Pinch Points	Device Cost	Multiple Resins	DLP System Envelope	Prototype Hardness	Modular Design	Operator Satisfaction
		Engineering Specifications																			
Utilized DLP Projector	9			3	3	9				3				3			1			1	
3D Model Slicing Software	9			9	9			3	3												
Fully Automated	9			1					9			3	3			3		1			9
Utilized Photopolymer	9									9							9				
Device Functionality	1								3	3							9			9	1
Prepare for Future MSD	9								3		9						3				
Device Safety Features	9								1			9	9	9	9	3					9
Device Cost	3		1						3			3	3	3	1	9		3			
Quality Prototype	9	9	3	9	9	9	9	9								3			9		
Operator Satisfaction	3	3	3						9			3	3	1	3					3	9
Prototype Creation Time	3	9	9					3	1										9		3
Prototype Size	9	9	9		9	9	1											9			3
Device Size	1		9						1							3		9			
		sec	inches (cm)	inches (cm)	inches (cm)	inches (cm)	inches/in (cm/cm)	inches (cm)	[---]	[binary]	[binary]	[binary]	[binary]	Lumens	[---]	$	cP	feet (m)	[---]	[binary]	Likert Scale
Raw Score		198	156	198	270	243	90	117	187	111	81	126	126	120	93	111	126	108	108	27	226
Relative Weight		7%	6%	7%	10%	9%	3%	4%	7%	4%	3%	4%	4%	4%	3%	4%	4%	4%	4%	1%	8%