

			The Tiered		The Monolithic		The Iterator		The Square One	
			Matlab / SolidWorks		Plug-In to Image-J (Java)		Generative Design		Independent Application	
Rank	Criteria	Weight	Score (10 max)	Weighted Score	Score (10 max)	Weighted Score	Score (10 max)	Weighted Score	Score (10 max)	Weighted Score
1	Cost	20	2	4	10	20	3	6	10	20
2	Accessibilty / Compatabilty	20	4	8	10	20	10	20	10	20
3	Convenience / Ease of Use	15	6	9	8	12	10	15	8	12
4	Computational / User Time	15	7	11	8	12	1	2	5	8
5	Ease of Programming	15	8	12	9	14	7	11	2	3
6	Resolution of Implant	10	7	7	7	7	10	10	7	7
8	Safety	5	10	5	10	5	10	5	10	5
	<b>Sum</b>	<b>100</b>	<b>Sum</b>	<b>56</b>	<b>Sum</b>	<b>90</b>	<b>Sum</b>	<b>68</b>	<b>Sum</b>	<b>75</b>

Cost - Software and licensing subscriptions have a variety of costs from zero, to thousands of dollars. The more expensive the software, the less favorable.

Accessibilty / Compatabilty - The program we create must either be written on a software that is readily available or a software that is easily obtained and used. Additionally, the software needs to be able to work with the STL files Mimics creates from the CT scans.

Convenience / Ease of Use - The program will be complicated in nature, however it must be user friendly. Little to no programming knowledge should be required to run the program. The number of user steps should be limited and program should independently run.

Computational / User Time - The program will output optimized dimensions for an implant, which, depending on the level of detail and conciseness of code, can take varying lengths of time. Additionally, users will be required to switch between programs and input certain values, which will also differ amongst the proposed ideas.

Ease of Programming - The difficulty and knowledge of programming required to develop this process. Takes general difficulty, amount of hands-on time from design team, and previous knowledge required to pursue each option

Resolution of Implant - The detail and type, ie polynomial or vector, of the output implants. Higher resolution is more desirable in the resulting implants as it allows better patient custimizability. For certain geometries, like rounded edges or arcs, vector graphics are more desirable with complex geometries more easily represented with polynomial graphics.

Data Storage Limitations - The amount of storage that the files used during the process will take up. A program that uses too much storage would be less favorable.

Safety - There are no safety concerns with the program itself, but the program does need to be able to output a device that is safe for the patient and will not cause further damage.