

System QFD

Project: **QFD STM ME CAPSTONE**
 Date: 10/22/23

Legend	
A NaioSTM	NaioSTM
B SNE Alpha	SNE Alpha
C VHX-7000 Series	Adopted by

1	Minimize dimensions of structure				
2	Isolate the structure from surroundings/surface	3			
4	Integrate Fine Thread thumb screw	3	0		
5	Affordable material selection	9	-3	-3	
6	No magnets used within structure	0	-3	0	3

		Technical Requirements					Customer Opinion Survey					
		Customer Weights	Minimize dimensions of structure	Isolate the structure from surroundings/surface	Integrate Fine Thread thumb screw	Affordable material selection	No magnets used within structure	1 Poor	2	3 Acceptable	4	5 Excellent
1	Compact Design	5	9	3	3	9	0	C				AB
2	Dampen Vibrations	5	3	9	3	0	3		AB			C
3	Space for Electrical Components on Structure	5	9	3	0	0	0					ABC
4	Adjustable Height Between Scanning Tip and Sample	4	3	3	9	0	0		AB			C
5	Cost-effective	4	3	0	0	9	0	C	AB			
6	No Magnetic Field present within STM	4	0	3	0	3	9					ABC
7	Precise Adjustment of the Structure	4	3	0	9	0	0		AB			C
Technical Requirement Units			in^2	dB	pitch (in)	\$	NA					
Technical Requirement Targets			<25in^2	>4	.25 80	500	None					
Absolute Technical Importance			141	99	102	93	51					
Relative Technical Importance			1	3	2	4	5					