Question/Prompt	Importance (1 is highest)	Customer Statement	Interpreted Need	Improvement Suggested
Basic Functions	10	I need you to develop a new cylinder design, so that we know where all the parts come from and how to manufacture it.	The module has a unique design with documented parts and assembly.	Create BOM including where the parts were obtained from
	6	Create a stand for the heart so the ultrasound probes can be hooked up to the heart while it is in operation.	-	Build and design the stand
	5	There must be no bubbles in the heart so the ultrasound can be read easily.	-	Bubbles will disrupt the ultrasound, so the redesign ust eliminate bubbles
	1	I need to be able to move the module to another classroom for use.	The module is mobile.	Reduce the size of the system and its components to make the system easily portable
	8	It must be easy to fill and drain the fluid, and to clean up.	There is a simple method of filling and draining liquids from the module	Add valves in the system so it becomes easier to drain
	7	I need basic access points and standard connectors to be able to use measurement tools.	The module has standard connectors at joints.	Insert more access points so data can be collected at more locations
	2	The module must be both electronically and mechanically safe.	The module is user safe.	
	9	The module must run for 8 hours uninterrupted.	The module runs for a minimum of 8 hours.	
	13	The module must use A/C voltage supply.	The module uses A/C voltage supply.	
	11	The module must be quiet enough to use without a problem in a classroom.	The module is quiet.	
	12	The fluid used needs to simulate blood.	The fluid must simulate blood.	Locate a fluid other than water to better simulate blood
	4	The pump section should be scalable to be able to represent an adult heart, as well as that of an infant.	The module is scalable.	
	3	The heart must simulate the periodic waveform of the heart, including frequency, dynamic range and duration of pumps, as well as the output of fluid from the heart, flow rates and volumes.	The pump module simulates the functionality of the heart.	
Measurements and Controls	2	There must be interfaces to and from the computer that will measure pressures and flow.	The module has a bidirectional communications link that allows it to be controlled, modified and monitored via the control system.	There will be more sensors to better monitor the pressure and flow in various parts of the system
	4	There must be access to the internal flow directly as well as indirectly to measure flow and pressure.	The module is capable of invasive and non-invasive measurements of flow and pressure.	
	1	I need it to be easy to use, and have a user interface on *LabView*	There is a simple user interface on Labview to control the module.	Re-create the interface to make it user-friendly and easy to manipulate
	3	There must be a fail-safe operation as well as an emergency stop button.	The module has a fail-safe operation as well as an emergency stop button.	
Aesthetics	1	The module must be visually pleasing to look at.	The module is aesthletically pleasing.	Make the design look like an engineering prototype, clean and neat
	2	Reduce the number of hose connections in the system	-	The previous design had to many hose clamps and connections in the system
	3	The module should be mounted on a board, and be functional lying down or turned vertically. The end product must be "clearly impressive" to any friends, associates, family, potential employers, etc.	The module is mounted on a board, and is robust.	