House of quality

When engineers have customers that are interested in their services, and they want to makes sure they can meet their clients’ needs while keeping in mind the practicality of meeting their needs; a house of quality is used. The House of Quality is a chart that helps give a better understanding as to what the customer requirements are and what the engineering requirements for that customers’ product. With this chart, you can find the correlation between the consumers’ needs and the engineering requirements. Once you find the correlation between the consumers’ requirements and the engineering requirements, you can then determine the specs of what that product would have. Also with the correlations you can determine what is most important and what is the least important.

When looking at the house of quality chart the top portion of the chart is where the engineering requirements are listed. Above those listed engineering requirements shows the correlation between each of those requirements. With this correlation, you can determine if one requirement will affect another one either negatively or positively. On the left side of the chart it shows the request/requirements of the consumer. Usually in some House of Quality charts there would be an extra space next to the needs the customer states, and you would rate them, on a scale of your choosing. You would then rate the request of the customer from most important to least important from the consumers point of view. The middle portion of the House of Quality chart is where the correlation between the consumer/marketing requirements and the engineering requirements happen. At this point this is where you can decide whether the engineering requirements would be able to support the marketing requirements set by the consumer. The bottom part of the house of quality chart are the set targets for the engineering requirements that have been stated. This part of the chart helps declare a range for your specs for that specific project.

With our house of quality, you can see the we have the requirements the consumers would want in an alarm system. Also, we have the engineering requirements that would be needed to take into consideration to help meet the consumer requirements that were requested. When doing the correlations, we could differentiate the requirements that were more important and the ones that weren’t as significant. With the correlation, we able to come up with a good idea of the targets we needed to satisfy the engineering requirements. So, from this house of quality chart that we have we can see that the most important thing when it comes to the consumer side is that they would want a good battery life. The costumer would want the battery life to be long. This necessity relates to a lot of the engineering requirements, because the battery is essential to the actual system work, and having a bad battery that doesn’t last long or has a bad discharge rate can affect the efficiency of the product. Also, the house of quality chart helps us target which aspects of the product to focus more on than the others. With this chart that we have we would need to focus more the battery, the smoke sensor, and the indicators. These three stipulations effect the targets we are trying to maintain when it comes to the production of this alarm system.

The House of Quality is used just to make sure that the engineers can help meet the needs of their customers while staying within a practical aspect when designing the product. There’s always going to be a give and take when it comes to trying to provide a product to a consumer, and trying to meet all the expectations that they want. Unfortunately, all the stipulations that the consumer may want within their product may not be achieved. However, it is the engineers job to make sure that they are able to produce the most efficient product even if they can’t meet all of the consumers needs.