Title: House of Quality for Control Based Station

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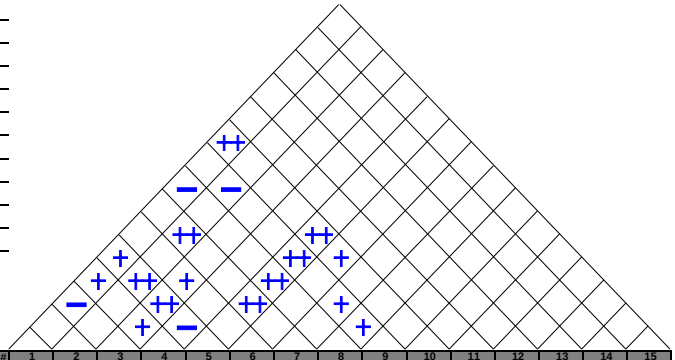
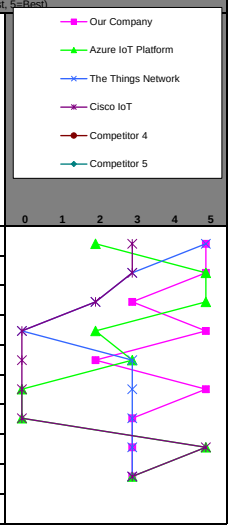
Notes:



Legend		
⊙	Strong Relationship	9
O	Moderate Relationship	3
▲	Weak Relationship	1
++	Strong Positive Correlation	
+	Positive Correlation	
−	Negative Correlation	
▼	Strong Negative Correlation	
▼	Objective Is To Minimize	
▲	Objective Is To Maximize	
X	Objective Is To Hit Target	

Column #			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Competitive Analysis (0=Worst, 5=Best)					
Direction of Improvement: Minimize (▼), Maximize (▲), or Target (x)																								
Row #	Max Relationship Value in Row	Relative Weight	Weight / Importance	Quality Characteristics (a.k.a. "Functional Requirements" or "Hows") / Demanded Quality (a.k.a. "Customer Requirements" or "Whats")	Range	Expected Life	Refreshing Rate	Latency	Cost	Weight	Number of Savage Parts	Uptime Hours Per Day	Data Storage Capacity	Number of Wireless Protocol						Our Company	Azure IoT Platform	The Things Network	Cisco IoT	Competitor 4	Competitor 5
1	9	16.7	5.0	Must Provide 1000 square feet coverage	⊙		⊙	⊙	⊙	▲		▲		O						5	2	5	3		
2	9	16.7	5.0	Offer mutiple new wireless protocols: LORA, ESP-NOW, WIFI (2.4Gz & 5Ghz)	O	▲	⊙	⊙		O	O			⊙						5	5	3	3		
3	9	6.7	2.0	Data must be updated every 5 sescond	O		⊙	⊙	⊙			▲		O						3	5	2	2		
4	9	6.7	2.0	About 80 percent of the parts should be recyclable or reused.		▲			O		⊙			▲						5	2	0	0		
5	9	3.3	1.0	It only allow 90 minutes downtime.					▲			⊙								2	3	3	0		
6	9	10.0	3.0	The system should last more than a 5-year life span.		⊙							▲							5	0	3	0		
7	9	10.0	3.0	About 80 percent of the parts should be recyclable or reused.		O			▲		⊙									3	0	3	0		
8	9	6.7	2.0	Farmers should be able to view weather data of one year.			⊙	O	O			⊙	⊙							3	5	3	5		
9	9	6.7	2.0	The system must be light enough to be carried and lift one hand.					▲	⊙	▲									3	3	3	3		
10	9	16.7	5.0	The total system cost should not exceed $1000.		O		▲	⊙		▲			▲											
				Target or Limit Value	1000 square ft	5 Years	5s	30s	1000$	30 pounds	80 Percents	24 hours	32GB	4											
				Difficulty (0=Easy to Accomplish, 10=Extremely Difficult)	0	8	3	3	8	7	10	10	0	5											
				Max Relationship Value in Column	9	9	9	9	9	9	9	9	9	9											
				Weight / Importance	220.0	193.3	420.0	396.7	420.0	126.7	223.3	113.3	70.0	243.3											
				Relative Weight	9.1	8.0	17.3	16.3	17.3	5.2	9.2	4.7	2.9	10.0											



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