**4/ Requirement Specification**

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| Marketing Requirements | Engineering Requirements | Justification |
| 2,4,8,9 | The dimension of Cleaning Glass Machine (CGM) must be around 50x50x20 cm (side x side x height) | CGM's bottom is square. It is easily to stored by stack five CGM in a column. |
| 4,5,6,10 | CGM's weight must be approximate 2-4kg and easy to keep it stick on glass for a short time by human. | CGM's shell made from hard plastic. Most part of it is plastic, rubber and fabric. |
| 1,7 | The machine GUI is simple and take up less resources. | The GUI is designed to be suitable for both user and technician |
|  | Detect Edge Accuracy, Change Direction Correctly and Clean Efficiency | Use good sensor to detect edge.  Rotation Motors are strong enough to rotate the machine and cleaning parts.  Include a water tank (1litre/tank) |
| 3,6,7 | Machine can work accuracy in extreme condition (rain, windy or sunny) | The shell is designed to resist water and collision.  The Inhale Air Motor can create high pressure to keep machine stick on glass.  Include a Safety Rope to guarantee the machine not fall down(optional). |
| 6,7,10 | The machine have 3 operation mode. | Standard mode(default), High Performance mode and Clean Floor Mode to satisfy customers need. |
| 9 | There are Skyscraper and House version. First version cost customers more money than second version. | Customers have more choice to buy a CGM. They can save money if they buy the suitable one. |
| 1,5 | Update Firmware through USB interface. | Both Technician and User can update CGM's Firmware by a laptop or PC with USB interface |

**Marketing Requirement:**

1/ The machine should have user-friendly interface.

2/ The machine should have good appearance.

3/ The machine must be highly durable.

4/ The machine must have good performance.

5/ The machine must be easily to be used, repaired and to transported.

6/ The machine must work continuously at long time.

7/ The machine must be flexible and reliable.

8/ The machine must be fit and operate in almost kind of glass.

9/ The machine should have a medium cost.

10/ The system should be power-efficient and consume low energy.