**Quality management measurements**

Nowadays, Parents consider whether to buy a toy for their baby; the first thing they concern is not price, not beautiful appearance, not fancy functions; it is the quality, particularly about safety. No matter how low the price, how attractive the appearance, how fancy the functions, once some people complain its poor quality or there is some safety risks, nobody will buy it. Quality management focuses not only on the process to control quality but also on how to achieve the quality. In order to achieve high quality for Zodiac music toy, we consider measuring its quality on safety, usability, testability and reliability.

Safety: toy safety is most important. Different countries have their own standard. For example, international standard *ISO 8124-1, ISO 8124-2, ISO 8124-3*; In USA, There is *U.S. Child Safety Protection Act, Small Parts Hazard Warning Rule and Rules for Reporting Choking Incidents* ; In China there is *GB 9832-93*. Zodiac music toy must meet with the standard of countries in which it would be sold. It should not come out small parts when Babies bite, slick, throw or other behaviors. It should not contain any toxic not limited BPA, lead, and cascophen.

Usability: Zodiac music toy should be ergonomics design. It is easy to hold for babies and it is portable. Toy’s size is 5 x 5 x 10.5 inches, weight is 15 ounces or less. No damage, all functions work well, no cacophony when playing music and volume should be lower than 60 DB. If it could not be used, it cannot be regarded as a product.

Testability: Zodiac music toy should pass physical, electrical test for hardware and it should pass software test including function, integrity and performance test, too.

Reliability/ Stability: in the same condition, the same input gets the same output each time. In other words, under stated conditions, its functions should work well and would not change physical status. For Example, during -30 ℃ ~50 ℃, Zodiac music toy should work normally.

In summary, when we measure the quality of a toy. First thing we should do is to measure its safety. It is not only the product safety, since it relates to the child's safety. We should pay attention to toy safety, whether its cover or body, whether physical or electrical material, we should fully comply with safety standards, to eliminate potential safety problems as possible.