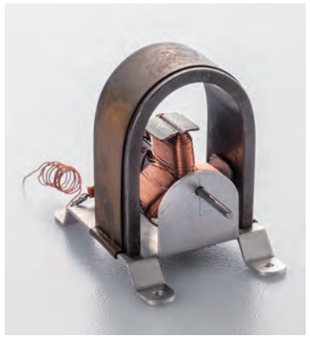
# Our Identity

## Diversifying Applications while Specializing in Small DC Motors

## Sources of our High Profitability as Seen in the History of our Founding and Business Development



The high-performance horseshoe-shaped magnetic motor

Tokyo Science Industrial Co., Ltd.

The F-type motor, which uses a ferrite magnet

### A Pioneer in Small DC Motors

The story of Mabuchi Motor begins in 1946, well before the Company's founding. In that year Kenichi MABUCHI, later to become the Company's first president, created a motor for use in teaching science to school children in Takamatsu, Japan. In 1947, he succeeded in developing the world's first high-performance horseshoe-shaped magnetic motor. In those days, the magnetic field in a DC motor conventionally was created using an electromagnetic coil. However Kenichi was an out-of-the-box thinker, and came up with the idea of using a permanent magnet that would allow for smaller motors and lower power consumption. He proceeded to make this idea a reality. Working with his younger brother Takaichi who would later become the Company's second president, Kenichi produced and sold high-performance horseshoe-shaped magnet motors for use in models. This motor was able to rotate continuously for one to two hours using only one battery, which was astounding at the time.

While building the foundation of the small DC motor business on these products for models, the Mabuchi brothers began to enter the toy parts market, which was larger than the model market. Back then toys were powered mainly by either springs or friction, power sources that dwindle quickly. Therefore, Kenichi and Takaichi developed a motor for toys. In 1953, they approached Nomura Toy, a toy wholesaler in Tokyo, to sell their new motor to the company. When Nomura Toy showed a motorized toy sample to a toy buyer from the United States, the buyer's eyes widened in surprise. This was the origin of Mabuchi Motor sales to Nomura Toy. Production and sales surged, and Kenichi and Takaichi moved their business to Tokyo, the hub of Japan's toy industry. They rented the second floor of Nomura Toy's warehouse and set up a factory there. Then on January 18, 1954, they established Tokyo Science Industrial Co., Ltd. – the date we regard as the founding date of Mabuchi Motor.

In the earlier days of the Company, motors produced by Mabuchi Motor were used mostly in toy cars made for export, and they were too expensive for ordinary Japanese people to buy at that time. The Company decided to create a small and powerful motor that could make toy cars affordable for children in Japan. Doing so was required reducing the cost of the motor from 120 yen to 20 yen, which was the cost of a spring. The main component of motors at that time was an expensive material called alnico magnet, therefore, we set out to develop a motor using a less expensive ferrite magnet. Using the new ferrite magnet, the Company created the F-type motor, whose performance matched that of an alnico magnet motor - at half the weight and a cost below 20 yen. Production of the F-type motor began in 1958. It was an innovation that synced perfectly with the plastic model fad at the time - and "Mabuchi" became a household name.

### Thoughts Put into Our Motors

Mabuchi Motor started from a dream of a boy who loved models. Kenichi MABUCHI, the first president who loved manufacturing since he was a child, created model airplanes and ships and devised various ways to move them. When he was in sixth grade, he used gasoline as fuel to move a model of a steamship with alcohol lamps faster, which ignited and caused severe burns. At that time, he thought he wanted to create a safe power for children in the world. This experience led to the later development of our motors.

In 1946, Kenichi created a motor for school teaching materials with the idea that "science education must be flourishing for the future development of Japan." That is the school motor. In this way, our educational support has been handed down from before our founding.



### Technological Innovation and Diversification of Applications

In 1960, we focused our attention on the trend in tape recorders toward more compact, lighter weight, and cordless designs and began to develop a motor for tape recorders. For this application, we needed to achieve silent, smooth rotation while reducing current consumption to 10% of its existing level, and extending service life 50 to 100 times. We did so through a threefold innovation that improved shaft precision, used a new oil-less bearing, and refined the motor technologies, including to enable contact between a commutator and brush – all of which reduced production costs. As a result, we succeeded in developing the FM- 250 series of motors, which later gained an overwhelmingly large share of the tape recorder motor market. This is one example of our innovation pattern. Mabuchi Motor has realized diversification of expanded applications for our small DC motors through innovating in technologies and reasonable price.

We have specialized in small DC motors and have worked to diversify the market for their applications because we believe it is essential to concentrate our business resources on small DC motors in order to create products that outperform our competitors, even though we are a modest company scale.

We have achieved business growth by developing our business activities with the aim of selling them not only in Japan but also to markets and customers around the world. As a result of these proactive sales activities to markets and customers around the world, the overseas sales ratio of motors has reached about 90%.

### Standardization to Achieve High Profitability

In 1969, as the scale of motor production and sales grew rapidly, we experienced significant production shortage of parts and our assembly capacity proved insufficient. In the toy industry of the time, that products were custom-made was taken for granted, and Mabuchi Motor was producing a wide variety of motors whose specifications differed slightly depending on the customer. The production failure hit during the summer, which was the peak production period ahead of the Christmas holiday shopping season. In addition, we received a number of our customer complaints.

To rectify this situation – and just as importantly, to avoid its recurrence – Mabuchi Motor made the decision to standardize its products. We started explaining to our customers how to achieve high profitability through standardization, and the first to agree with us was one of the largest toy manufacturers in the United States. As a global industry leader, the Company was keenly aware of the tough competitive environment and recognized that standardization offered a smart and reasonable way forward. After that first agreement, our standardization project clicked into gear. This unique strategy has enabled Mabuchi Motor to build, maintain, and expand its sustainable competitive advantage and achieve high profitability.

*Please refer to page 25 for more information on our standardization strategy.

### Origin Story: Our Management Principle

Takaichi believed that, for the Company to keep growing and developing, it needed a strong management team, and to this end, we have formulated our Management Principle that our employees can truly identify with in 1971.

Under our Management Principle, profit is not the company's ultimate objective. However, we attach great importance to profit. We believe that profit is a company's reward for contributing to society or to customers, as well as an indicator of the level of its contribution. Profit is also a source of energy for powering more and increasing social contributions. We believe that a company can remain in a virtuous cycle of increasing social contribution, which increases its profits, which then through more and better activities again increases its social contribution, and so on. And we believe that such a company will gain the support of people and communities local and global. It will find that its purpose has become timeless.