

TOUCH the FUTURE

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Condensed with permission from a Mazak Corp. videotape "Touch the Future"

The following projections of what may occur up until 2019 to society, our lives, business, and manufacturing are those of Mazak Corporation Planners, Engineers, and Scientists and form the basis of the videotape "**Touch The Future**". It was created in 1999 and since that time, some of their projections have already occurred or have begun.

Throughout the progress of science and technology, the Industrial Revolution that started in England in the 18th century has brought us many benefits and enriched our daily lives. During the last 200 years, there have been enormous advances in science and technology. These advances have changed our lives and the manufacturing industry. We now take for granted, what in the past would have been unthinkable.

Space Stations

Let us imagine we are embarking on a momentous journey to the year 2020. Considering the past advances, can we imagine what the year 2020 might look like? In 2020, there can be many international space stations in orbit approximately 250 miles (400 kilometers) in which a number of materials are produced in zero gravity, as well as performing medical and astronomical research.

By that time a lunar city may have been built on the moon with people working on a project to colonize the moon in which there are tens of thousands living there. They are engaged in the refining and manufacture of rich mineral resources and helium, and the production of air and water.

Air Travel

Imagine a space plane, taking off from New York that is propelled by a large rocket to orbit around the world. Later the rocket is ejected and the space plane arrives at the Tokyo megafloat, a space station floating island. This megafloat provides a number of advantages:

- It can be built in a short time and can be used in deep seas and is unaffected by earthquakes.
- In addition to operating as an airport and seaport, it houses a factory and research institute.

Land Transport

There has also been a revolution in land transport. The same freight cars used by trucks and trains to transport goods have completed their delivery rounds in an urban area congregate at the rail terminal. Here they are equipped with wheels for rail travel and connected to the electric train and transported over long distances. This way there is no pollution, traffic accidents, traffic jams, and long haul transport is punctual and safe.

Sea Transport

On the seas, high-speed transport is performed by techno-super liners. This container vessel uses a super conductor-plus engine capable of speeds of 222 miles (357 km) for high-speed travel on the seas. A 14,000-mile (22,530 km) journey from Tokyo to Los Angeles would be approximately 40 hours, totally changing the concept for container vessels.

Rail Transport

As for rail transport, the linear motor has been practically applied since 2005 and 2006 and super conductive magnetic floating carriages that have no contact with the rails move at very high speeds. At a speed of 400 miles (650 km) per hour, it would take just 46 minutes to travel a distance of 300 miles (500 km).

Road Transport

The fuel for automobiles that are the main means for personal travel has become hydrogen, instead of gasoline. When hydrogen is burned, all that is produced is water, so it is completely nonpolluting. Additionally, each wheel of the automobile has its own motor and energy is used efficiently. Parking in tight places presents no problem, since the vehicle can practically be moved sideways.

Power Generation

About 60% of the power supply for household needs will come from wind generators that are nonpolluting and consume no natural resources such as coal and oil. Nuclear power stations cause pollution and thermal warming, and hydroelectric power stations cause environmental damage to the rivers.

Personal Needs

Every household is a member of the information society with a wall display unit that serves as a television set and also as a video telephone. It is connected to an information system

where shopping and even medical checkups for the hospital are possible. A wide variety of systems will be available on the information system.

- Send out your body shape and size to the boutique and try on some clothes in a virtual shopping mall.
- Choose the clothing you would like from what is available and order it, payment is made by E-money.
- Health care is available without going to the doctor's office, examinations and medical consultations can be performed every day.

Information Technology

Information terminals have been made as functionally small as they can be. Portable TV's, telephones, computers, and automatic translators are incorporated into a unit no larger than the size of a wristwatch.

Humanity

Humans first appeared on earth 500,000 years ago. The total population of the earth 10,000 years ago and is estimated to have been about 10 million. The population increased to 30 million about 5,000 years ago, 5,000 years later it is at 6 billion. Twenty years from now it is expected to grow to 7.5 billion. Advances in science and technology will support the increase in population, as well as improve the living standards of the aging society. It is necessary that we increase our efforts that a good quality of life is available to all.