

MUSEUM HIGHLIGHTS



M1 | REGINA MARGHERITA THERMOELECTRIC PLANT • 1895



Who welcomes when you first arrive at the Museum?

The charm of the Regina (Queen) Margherita is connected to its grandeur and history. It was used in the silk factory Gavazzi in Desio (Milan) to power 1800 electrically operated looms and illuminate the premises. It was inaugurated in the presence of the royal family and tells the story of a time when Italian industries were gradually turning to electrical power. Its steam engine was built by the Franco Tosi workshops in Legnano, famous in the history of mechanical industry. A technical world animated by love such as that between the Museum founder Guido Ucelli and his wife Carla Tosi.

M1 | DETECTOR UA1 • 1981



How does one win a Nobel Prize in Physics?

In 1983 the UA1 (Underground Area, Experiment One) demonstrated the existence of the elementary particles W and Z. With this significant discovery Carlo Rubbia and Simon van der Meer won the Nobel prize. What you see is a section of the central detector: the original device was almost 20 feet long and weighed 2,000 tons. The experiment took place at CERN in Geneva and involved over one hundred physicists from around the world.

M2 | LEONARDO DA VINCI: THE MODELS COLLECTION • 1950s



Would you miss the most important collection in the world of Leonardo da Vinci's historical models?

These models were displayed for the first time in 1953, to celebrate the 500th anniversary of Leonardo da Vinci's birth. They are the result of an interpretation that translates and completes the original drawings. They were built by army architects, engineers and model makers and their construction still continues. These models played a fundamental role in the dissemination of Leonardo's thought and they help understand his ideas and his work on science and technology.

M2 | ALFA ROMEO 8C 2300 • 1932



How stylish are you?

This is one of the 195 "8c" cars produced by Alfa Romeo in the 1930s for special clients looking for an exclusive car. Its body is branded "Zagato", one of the most famous car fashion firms. Through the years, 8c 2300 cars have been used both as grand-tour and as racing cars. The most famous racing pilots of the time, from Nuvolari to Campari, used them in all the main road and track competitions, from the Mille Miglia to the 24 Hours of Le Mans.

M2 | GIOVANNI DONDI'S ASTRARIUM • Reconstruction by L. Pippa, 1963



Were we on time 700 years ago?

The astrarium is a planetary clock capable of determining the position of the Moon, Sun and planets, as well as the time and the festivities of the year. It is a masterpiece of the Middle Ages. The last known description dates back to 1529, when Emperor Charles V arrived in Italy. Giovanni Dondi describes its construction in a treaty, and it was thanks to this original text that it was possible to rebuild the astrarium in 1963.

M2 | PROGRAMMA 101 • 1960s



What was your first PC?

The Programma 101 is considered the first personal computer in history. Developed by Olivetti between 1962 and 1964, it was designed as a desktop calculator. It could perform the four elementary operations, the square root and it could be programmed. It was created by Pier Giorgio Perotto and was presented in New York in 1965. 44,000 units were produced for the U.S. market. Its design by Mario Bellini won the Industrial Design Award.

M2 | GIOVANNI V. SCHIAPARELLI'S MERZ-REPSOLD TELESCOPE • 1882



Did you know that Martians were invented in Milan?

In 1886 - when it came to service at the Brera Astronomical Observatory in Milan - the Merz-Repsold telescope was the largest in Italy and one of the most important in the world. With this tool, Schiaparelli conducted his studies on Mars. He observed some structures - shaped like channels - on the surface of the planet. This ignited a debate on their very existence as well as on the possibility of living extra-terrestrial life on Mars.

M2 | MOON ROCK • 3.7 billion years



Have you ever seen a real piece of Moon?

This is a piece of the Goodwill Rock, collected in 1972 by the astronauts of the Apollo 17, the last human mission on the Moon. It is a small rock with an immense value, maybe the most relevant symbol of humanity's passion for exploration and for scientific and technological challenges. It was donated in 1973 by the American President Richard Nixon to the Italian Republic and later entrusted to the Museum. By studying it, scientists made hypothesis on the origin and nature of the Moon and caught a glimpse of the Solar System's first instants.

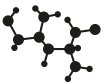
M2 | GUGLIELMO MARCONI'S MAGNETIC DETECTOR • 1902



Did you know that many lives were saved during the sinking of the Titanic thanks to a SOS radio signal?

This original prototype of a magnetic detector was used by Guglielmo Marconi in his experiments on electromagnetic waves. It was the first radio receiver in history that allowed to effectively receive radio waves over long distances. Invented in 1902 and tested aboard the Carlo Alberto cruiser, it represented a revolution in the world of Telecommunications, for which Marconi won the Nobel Prize.

M0 | GIULIO NATTA'S COUNTERTOP AND POLYPROPYLENE MODEL • 1950s



Can a molecule win a Nobel Prize in chemistry?

It is on a laboratory countertop like this one that Giulio Natta invented the isotactic polypropylene, a highly successful scientific and industrial innovation. Thanks to this molecule Natta won the Nobel Prize in 1963, giving the world a new material: plastic. Aside is a model of the molecule, used by the Professor to study and disseminate his invention. In 1947 Natta began collaborating with the Montecatini firm, starting an extraordinary cooperation between industry and university.

MO | STASSANO FURNACE • 1910



Want to see a rare item, hard to find in Europe?

This is the first electric indirect arc furnace to produce steel. It transforms electrical energy into thermal energy. The material in the furnace heats up, melts or is transformed thanks to the heat given off by a number of electrodes. This furnace used scrap metal instead of iron ores, obtaining high quality steel with great economic, environmental and social benefits. Invented in 1898, it won the prize "Milestone in the development of metallurgy" in 1992.

MO | EDISON DYNAMO • 1880s



Who used to light up streets and houses in the centre of Milan?

This dynamo comes from the first power plant in Europe, opened in 1883 in Milan for the production of continuous electrical current to illuminate the city. The plant was built thanks to engineer Giuseppe Colombo, future rector of the Milan Polytechnic, following the model of the one built by Edison in New York in 1882. Although the plant was soon outdated from the technological point of view, it turned Milan into a crucial centre for the development of the Italian electrical industry.

MO | CONTINUUS PROPERZI • 1948



Can a metal rod be a lighting rod for innovation?

For centuries, the production of metal semifinished products implied transforming the casted material into bars or plates, then cooling, moving, reheating and finally give them a shape. It was a great effort in terms of time, space, water and energy to produce just a few kilos of product per day. In 1948 Ilario Properzi patented the Continuum Properzi to produce kilos of rod with one single machine in only a few minutes starting from casted metal.

F | GR 552 036 LOCOMOTIVE • 1900



Can a train unite a country?

Presented at the Universal Exhibition in Paris in 1889, the Gr 552 locomotive was reliable and fast. This was why it was chosen to tow trains on the most important routes of Italy. After the opening of the Frejus between France and Italy in 1871, it towed every week from Milan to Brindisi the "Indian Mail", the famous train connecting London to Bombay, which was made up of a postal carriage, two sleeping cars and a dining car.

E | SUBMARINE S 506 ENRICO TOTI • 1967



Do you know that the Toti travelled 93 km on Lombardy roads?

Launched in 1967, the Toti was the first submarine built in Italy after World War II. Its job was to patrol the waters of the Mediterranean and detect Soviet submarines. In 1997 it made its last trip and since 2005 it rests here at the Museum. If you wish, you can be guided in a visit aboard to relive the sailors' emotions.

A0 | CONTE BIANCAMANO OCEAN LINER • 1925



Why is a great sea giant parked in a museum?

Diving into history: the prestigious launch in 1925 in Scotland, the first journey on the Genoa-Naples-New York route, the voyages to South America and the Far East, the transport of U.S. troops during World War II, and the last trips. Today's survivors are the ballroom and the bridge with the original equipment and some cabins, acquired by the Museum in the 1960s during the disarmament.

A0 | EBE SCHOONER • 1921



Can one slice up a ship and create an entire building to host it?

The Ebe was built in 1921 for the transport of goods in the Mediterranean. It turned into a pilots training ship in the 1950s. At the end of its service it was acquired by the Museum, cut into parts and rebuilt for the opening of the new Air and Water Building in April 1964. It is one of the largest ships kept in a museum.

A1 | STRATOS HANG GLIDER • 2004



Would you be brave enough to fly on top of the world, 8848 meters up in the air, with a pair of light wings?

At 8:30 am on May 24, 2005, Angelo D'Arrigo flew over the Everest for the first time with this rigid wing glider. He set the new altitude record in the gliding category. Produced by the Italian company Icaro 2000, the glider has a carbon fiber frame, a polyester fiber wing, and Ergal (an aluminum-zinc alloy) components. It has a total weight of only 34 kg.

A1 | MACCHI MC 205 V • 1943



What does a hunting dog have to do with a plane?

The Macchi MC 205 Veltro starts its service in 1943 and is considered one of World War II's most beautiful and practical planes. It is equipped with a 1475 cc engine, armed with two machine guns and two cannons. The name Veltro (greyhound) recalls the famous hunting dog that would save Italy mentioned by Dante in his Divine Comedy. The motto on the fuselage - "nock, bend and shoot" - is still used by the First Brigade of the Air Force Special Operations.

A1 | ENRICO FORLANINI'S EXPERIMENTAL HELICOPTER • 1877



Have you ever dreamed of flying?

Enrico Forlanini's experimental helicopter is the first object to fly thanks to the thrust of an engine. It has no pilot and it is equipped with a light steam engine and two counter rotating propellers placed on the same axis. In 1877 it was presented in Milan to an audience of technicians, engineers and enthusiasts, where it rose about 13 meters and remained in the air for 20 seconds, gently landing back in its starting point.

**MUSEO
NAZIONALE
SCIENZA
E TECNOLOGIA
LEONARDO
DA VINCI**



Regione Lombardia