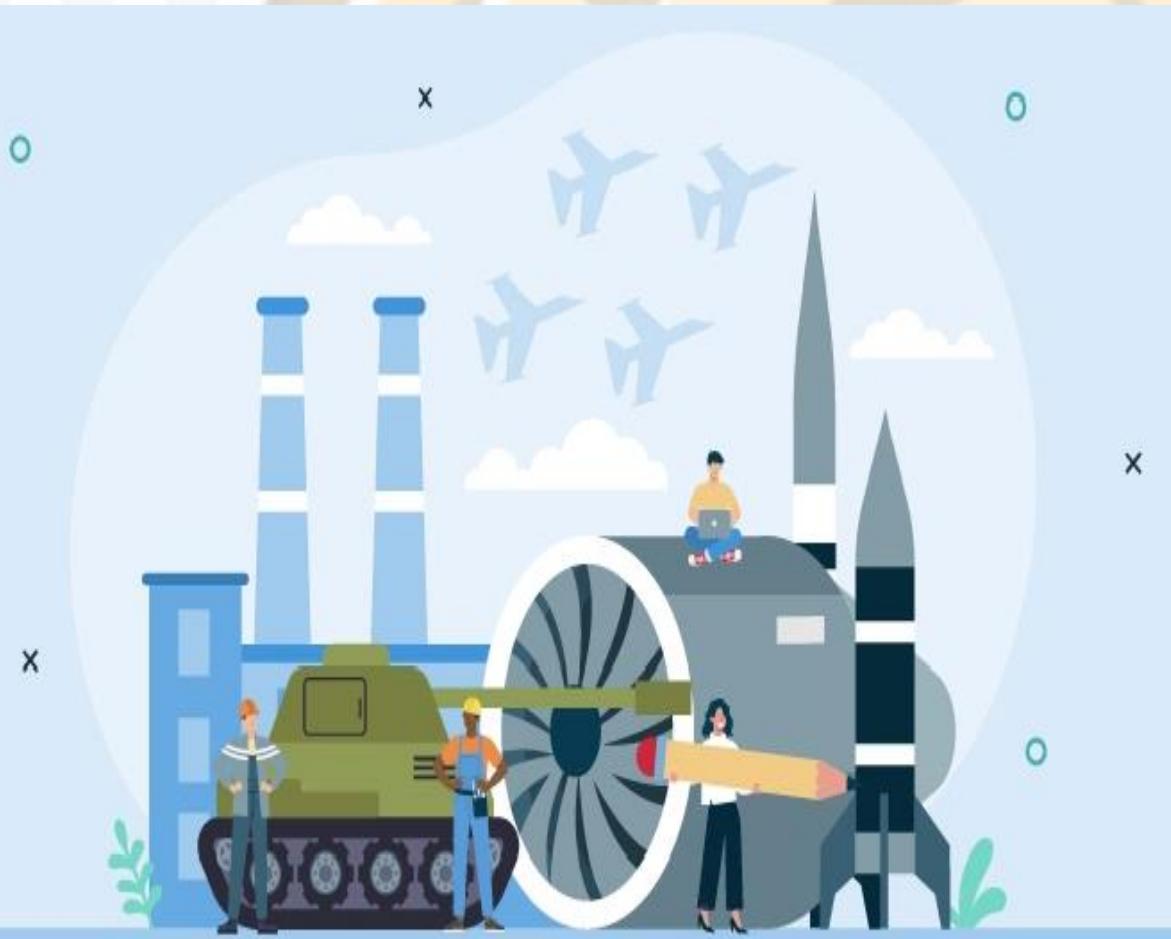


WEAPONS DEVELOPMENT



WHAT IS WEAPON DEVELOPMENT

- Based on the size of expenditures, direct or indirect involvement of engineers and innovative developments, military technology is an area that calls for serious discussion on engineering ethics.
- For some engineers, their involvement with weapons develop conflicts with personal conscience, such as knowing that making weapons in a company, is the job which would be done by someone else if he doesn't do and that cannot change the results.
- Though working in a toxic chemical manufacturing plant can make you feel guilty, the idea abolishing this disastrous thing once you become the CEO of the company, makes you get the feeling of being in good books, though you might or might not do that when the time comes.

WEAPONS DEVELOPMENT

Engineers involve in weapon development because of the following reasons:

- It gives one job with high salary
- One takes pride and honor in participating in the activities towards the defense of the nation.
- One believes he fights a war terrorism and thereby contribute peace and stability of the country, Ironically the wars have never won peace, only peace can win peace
- By research and development, the engineer is reducing or eliminating the risk from enemy weapons and saving one's country from disaster
- By building-up arsenals and show of force a country can force the rogue towards regulation

HISTORY OF WEAPONS

- Major innovations in the history of weapons have included the adoption of different materials – from stone and wood to different metals, and modern synthetic materials such as plastics – and the developments of different weapon styles either to fit the terrain or to support or counteract



PREHISTORIC WEAPONS

- People used clubs, axes and spears
- Weapons were made from wood, stones and metal.
- Used for Protection and Hunting.



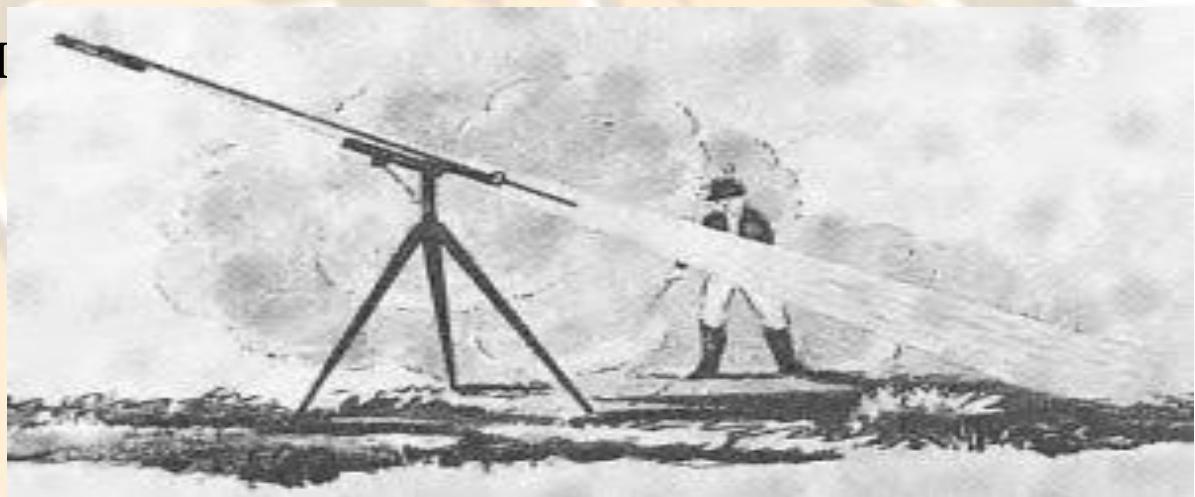
ANCIENT WEAPONS

- They fought with chariots pulled by donkeys.
- They also used bows and arrows, spears, axes and clubs.
- They wore copper helmets



MODERN WEAPONS

- 19th century weapons the industrial revolution transformed warfare.
- Railways meant armies could be transported much faster than before.
- Sir William Congreve developed the Congreve Rocket.
- 1807 a Scot named Alexander Forsyth patented the percussion cap.
- In 1837 Johann Von I
needle-gun.



- In 1835 Samuel Colt invented the revolver, the revolver made swords obsolete.
- In the 19th century many people experimented with machine guns. In the 19th century new explosives were invented to replace gunpowder.



20th Century Weapons

- In September 1916 the British introduced the tank.
- Submarines were used during the First and the Second World Wars.
- In 1915 the Germans began using Zeppelin airships.



- The war aircraft technology changed rapidly. During the Second world war aircraft realised their full potential.
- In 1944 jet engines were introduced and planes became still faster.
- The Germans began using Rockets.



- The other development was the atomic bomb.
- In 1952 American scientists invented the much more powerful hydrogen bomb. The USSR exploded it in 1953.
- During the Vietnam War the Americans experimented with laser guided missiles.

LASER GUIDED MISSILE



WHY IS WEAPON DEVELOPMENT ETHICS IS IMPORTANT FOR ENGINEER

- Though war seems to be part of human nature, the development of weapons engineering can significantly reduce the harm produced by war. Hopefully, with the help of engineers, future wars can be fought in a more peaceful way with smarter weapons that protect the interests of soldiers and civilians alike.

