

Differentiate, distinguish, compare and explain what is the main difference between Mechanical and Electromagnetic waves.

## **Difference between Mechanical and Electromagnetic waves**

1. Mechanical waves require material medium for the propagation. Electromagnetic waves do not require material medium for their propagation.
2. Mechanical waves are formed due to vibrations of the particles of the medium. Electromagnetic waves are formed due to varying electric and magnetic fields.
3. Speed of sound waves is low 332 m/s at 0°C (air). Speed of electromagnetic wave is high, at the speed of light (vacuum).
4. Mechanical waves can be transverse or longitudinal in nature. Electromagnetic waves are transverse in nature.

Steady Run