

# New Discoveries About the Speed of Electromagnetic Waves 2024 Part D

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## Proof of Helical Motion of Photons (Electromagnetic Waves) Using the Constant Speed of "C"

The speed of electromagnetic waves is a constant value of "C", measured by various scientific experiments. Therefore, it can be stated that the value of the speed "C" for electromagnetic waves remains constant with no change. No scientist or calculation can alter the value of "C" or, in mathematical and physical terms, it can be said:  $V_L = C = \text{constant}$

This equation is always valid, and unalterable by both physics and mathematics. Actually, the constancy of the parameter "C" can be considered as a constant law, and a perpetually established value. Considering the discussions presented in parts A and B, it has been demonstrated that the helical motion of photons has not been previously considered, and we have not calculated the helical speed. In those sections (A and B), the value of " $V_w$ " has been calculated using physical and mathematical relations, demonstrating that its value is " $V_w = 1.57 C$ ", remaining constant. In reality, it can be stated that the wave-like speed of electromagnetic waves in the universe is also consistently constant. Just as the existence of the constant speed "C" in the linear motion of electromagnetic waves is a principle, the existence of a constant wave-like speed of electromagnetic waves ( $1.57 C$ ) is also a fundamental principle in their wave-like motion. In fact, we possess two principles that, alongside each other, constitute fundamental parameters of electromagnetic waves. In fact, it can be said that the speed of electromagnetic waves regardless of the two linear and wave-like movements is in vain. One of the best explanations for the simultaneous existence of these two motions is the presence of helical motion, where both linear and wave-like speeds depict images of the helical motion of electromagnetic waves, as shown in the following figure.

