Brushless motor

Brushless motors are an evolution of traditional designs, showcasing differences such as rotor composition and coil arrangement.
Brushless motors utilize alternating permanent magnets and coils arranged in a star connection for efficient operation.
Unlike traditional motors that use mechanical commutation, brushless motors rely on ESC for electronic commutation by applying control voltages.
There are Different variations of ESC, they can be programmed with software features but fundamentally serve to manage voltage bursts for controlling motor speed.
The relationship between frequency settings on the ESC and resulting RPM is explored; higher frequencies lead to increased rotations per minute.
The current drawn from the motor depends on load conditions and voltage applied through PWM (Pulse Width Modulation).
The concept of KV rating (RPM per volt applied) is introduced with examples showing how different battery voltages affect the maximum achievable RPM.