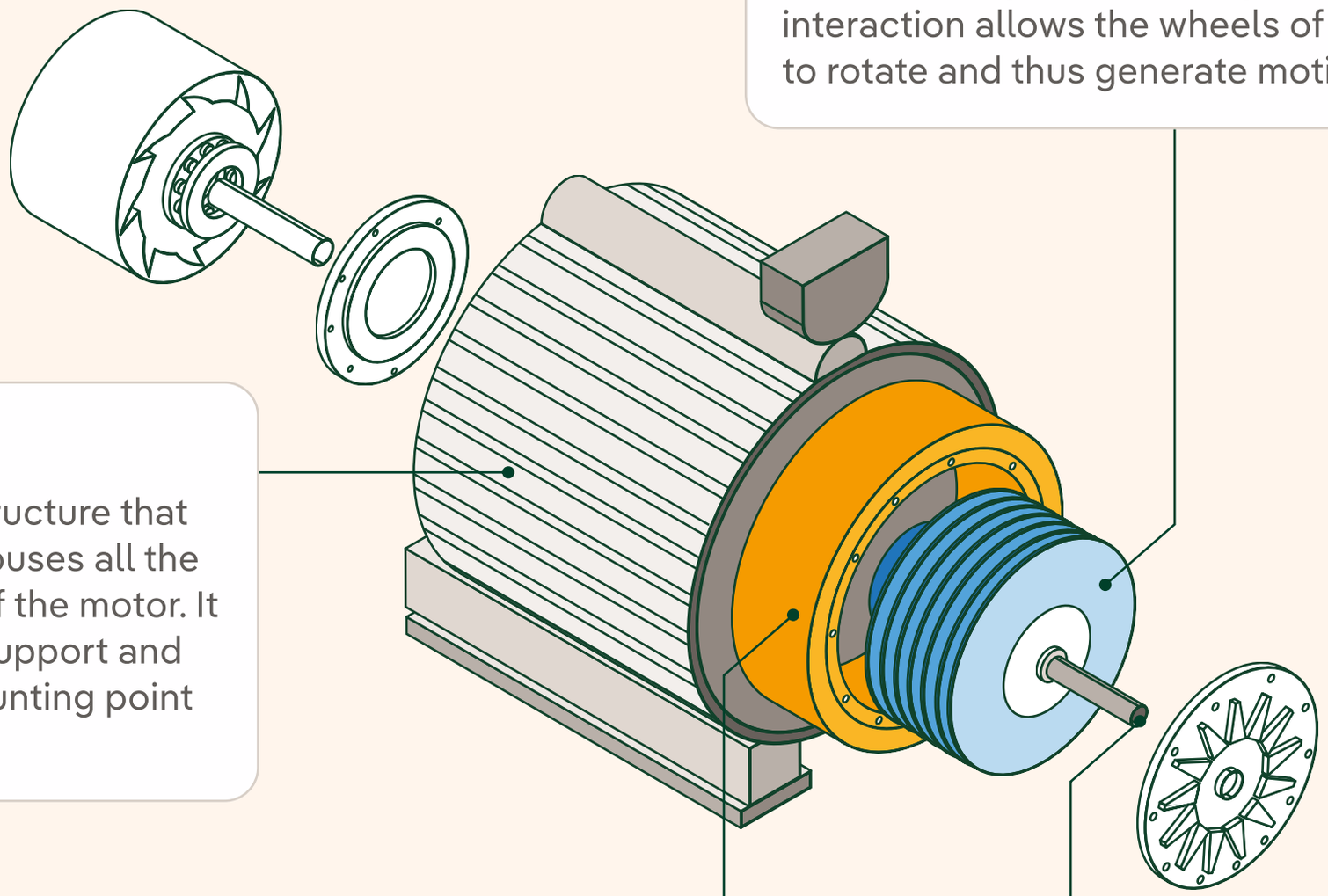
How does an **electric motor** work?

Rotor

This is the moving part of the motor and contains coils of wire or magnets. The rotating magnetic field in the stator drags the fixed magnetic field of the rotor and causes it to rotate. Through a series of gears, this interaction allows the wheels of the electric car to rotate and thus generate motion.



Casing

The external structure that protects and houses all the internal parts of the motor. It also provides support and serves as a mounting point for the motor.

Stator

This is the fixed part of the motor and contains coils of wire connected to a source of electric current. When electric current is applied to them, a magnetic field is generated inside the stator.

Shaft

This is the component that connects the rotor to the battery and the device to be driven. The rotary motion generated by the motor is transferred to the shaft to perform the desired work.