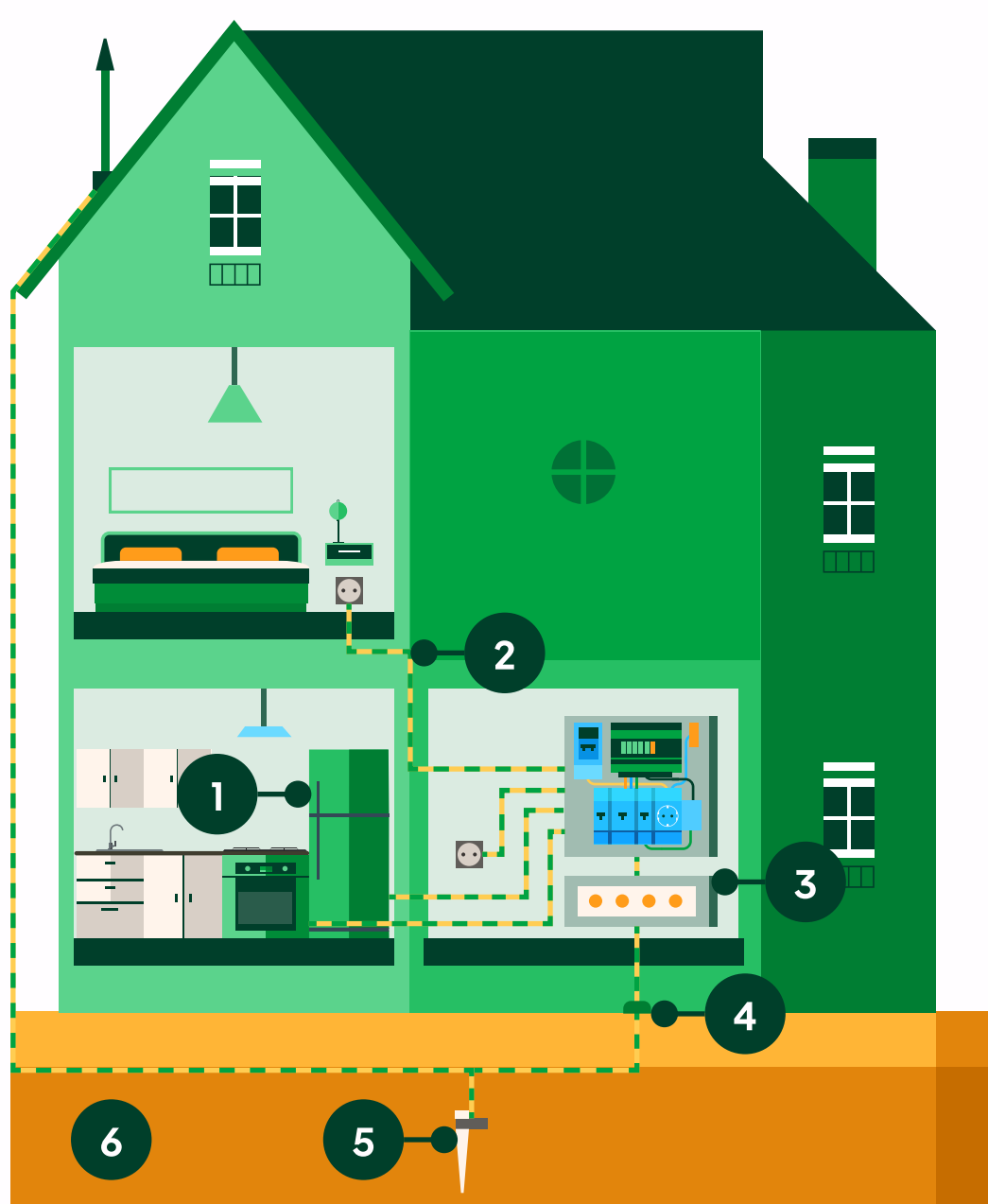


# Elements of an earthing system installation

An earthing system installation consists of several elements that work together to ensure electrical safety. From visible conductors within the home to systems buried in the ground, **all play a key role in safely diverting current in the event of a fault.**



1 Accessible conductive parts (exposed conductive parts)

2 Protective conductor (earth wire)

3 Main earthing terminal

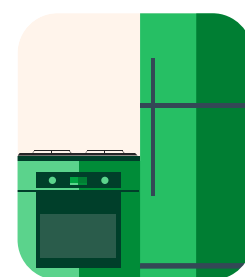
4 Earthing conductor

5 Earth electrode (rod, plate or mesh)

6 Ground (soil)

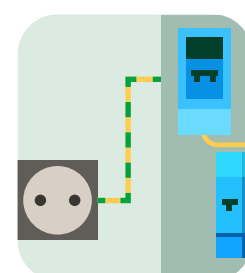
## 1 Accessible conductive parts (exposed conductive parts)

These are conductive parts of electrical equipment that are not normally live but may become live in the event of a fault. The International Electrotechnical Commission (IEC) defines them as exposed conductive parts that may become hazardous under fault conditions.



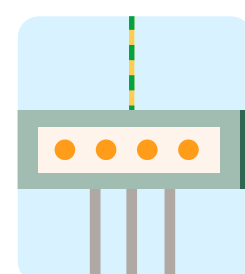
## 2 Protective conductor (earth wire)

This is the green-and-yellow cable that connects exposed conductive parts to the earthing system. Its function is to safely conduct leakage current.



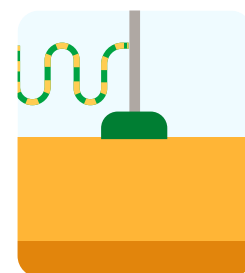
## 3 Main earthing terminal

This is the central point of the installation where all protective conductors converge. From here, the connection is made and the current is directed, in the event of a fault, towards the earthing system.



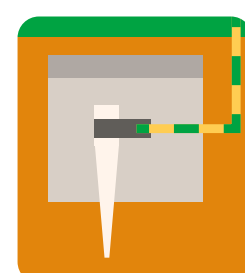
## 4 Earthing conductor

The cable that connects the main earthing terminal to the buried electrode. It acts as the link between the electrical installation and the ground, ensuring system continuity.



## 5 Earth electrode (rod, plate or mesh)

A metal element buried in the ground (such as a rod or a network of conductors). Its function is to transfer electrical current effectively into the soil.



## 6 Ground (soil)

The final destination of the leakage current. Thanks to its absorption capacity, electricity dissipates without danger, completing the protection system.



Source: [ElectricalTechnology.org](https://www.electricaltechnology.org), Ludus.