

# Uses of Copper in Modern Life



ARIZONA  
MINING ASSOCIATION

[www.azmining.com](http://www.azmining.com)

Copper has countless applications in business and in the lives of individuals. These are just a few examples of copper's essential uses.

## Mobile Communications



- Smart phones, tablets and other mobile devices contain copper circuitry.
- The network towers used to transmit wireless signals also use copper.

## Medical Care



- Antimicrobial Copper continuously kills bacteria on surfaces such as hospital bed rails.
- Diagnostic imaging systems and certain surgical instruments contain copper components.

## National Security



- From aircraft to advanced weaponry, copper keeps our military strong.
- Copper is considered to be a “Strategic and Critical Mineral” in the DoD’s 2015 Report on Stockpile Requirements.

## Transportation



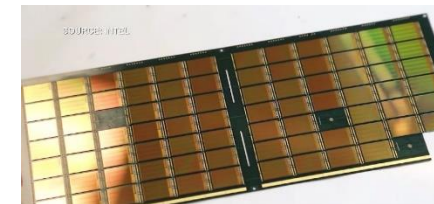
- The typical vehicle has approx. 50 pounds of copper.
- Copper is used in brakes, vehicle electronics, emissions controls, and wiring systems.

## Renewable Energy



- Copper is essential for solar photovoltaic systems. There are approx. 5.5 tons of copper per MW in photovoltaic systems.
- Copper is heavily used in wind turbines; found in generator coil windings, high-voltage power cable conductors, transformer coils and grounding equip.

## Technology



- Copper is present in major advanced economy technologies ranging from integrated circuits to batteries to electromagnets.