# ESD - Electro Static Discharge

Static Discharge

- ESD Precautions

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Many electronic components are susceptible to static electricity. MOSFETs can be permanently damaged by as little as 60 volts. You won't feel it, but your electronics will.

There are several steps you can take to protect your hardware:

## Antistatic Grounding Mats

The grounding mats on the workbenches are connected to earth ground through a high resistance (1 to 10 megohm).  Consider the mat as the safe place for your project.

## Wrist straps

People can develop a static charge, from walking on the floor or rolling a chair.

Wear a wrist strap that is snapped into the corner of the Grounding Mat to protect your project. Insist friends also don a strap before handling your precious device as well.

Note: The high resistance to ground for mats and straps reduces currents to a low level and should not usually affect operation of your project.

## Other preventive measures

Avoid bringing static producing items into the area.  Do not wear clothing with a lot of static cling.

Other prevention tools such as lab coats are not provided by BMS.

When transporting your project, use a static shielding bag or other Faraday cage container.

Note: The colored antistatic bags and plastic wrap prevent static buildup but are inadequate to act as a Faraday cage. Bags with conductive metal or carbon coatings are meant for this purpose:

