STEAM in Education



Carles Illarramendi & Imma Abad | Fundació Educativa Cor de Maria | Valls | Spain

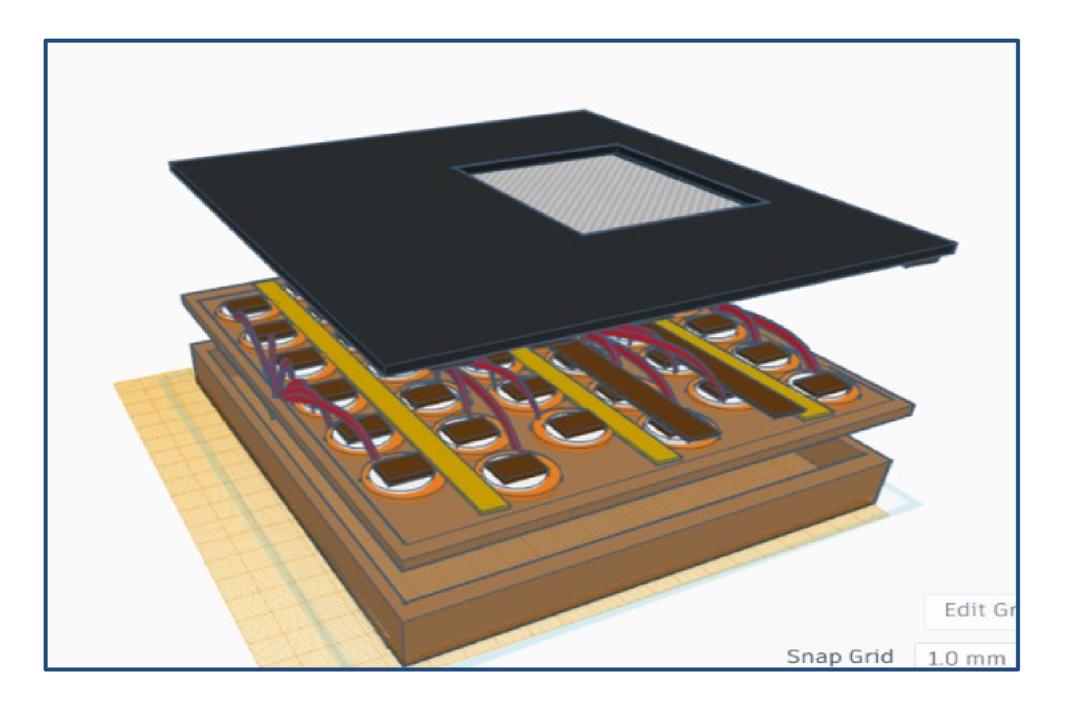
ECOPLATE PROJECT

Towards a New Energy Model

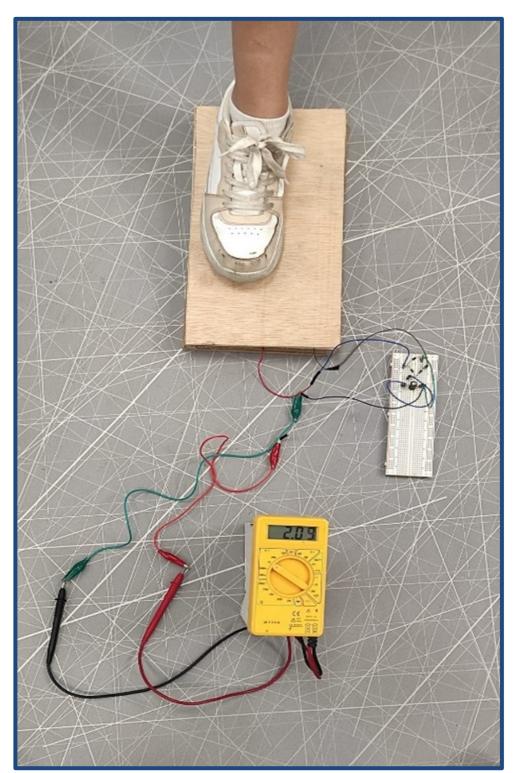


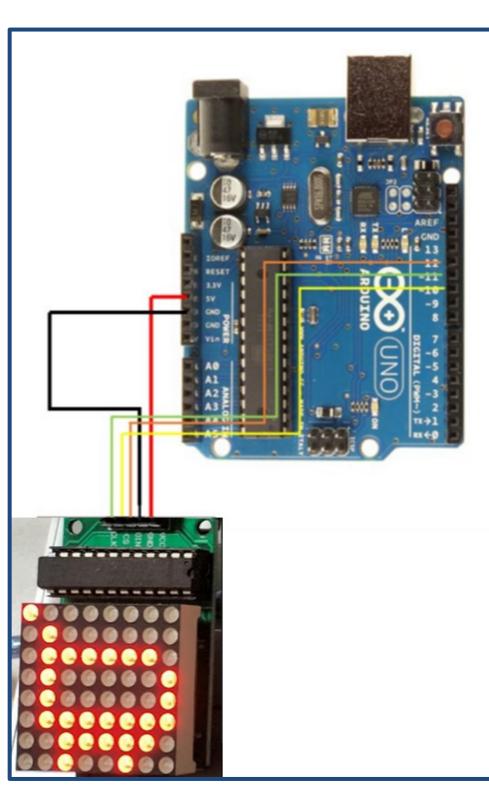
The use of fossil energy sources has devastating consequences for the planet: climate change. Therefore, the cities of the future will have to be energetically self-sufficient, and the energy generated has to be 100% renewable and meet sustainability objectives.

In response to this challenge, a group of high school students has developed a project to obtain energy by designing and building a tile that transforms the energy of a human footstep into electrical energy through the piezoelectric effect.









The amount of energy that is generated is still low, but placing these plates on the ground at the entrance of shopping malls or other large surfaces may be enough to power the sensors needed to implement Smart Cities projects.

To implement a smart, permanently connected society that is energy sustainable is mandatory to use energy harvesting to power the sensor and communications networks.