

Abstract

I choose this project with a bright view on the future and as research for alternative energy carriers, this in corporation with my mentor Rik Floren. I created an August Wilhelm von Hofmann-like hydrogen generator. Water will be chemically separated in its 2 atoms by an electrical current. The pressure, created by the 2 gasses, will be measured and this measurement will be sent to an Arduino that will act as a PID controller. The output signal will be according the measured pressure and thus the electrodes will get more or less current. This current will come from a direct current source. The Arduino will make sure that the generator will remain under a stabile pressure. To make sure that the water conducts the electrical current, an electrolyte is added. The electrolyte will have no effect on the generation of the hydrogen gas. The entire project will be mounted on a wooden plate so all of the components will be visual. If however in the future more components have to added this will make it even easier. In the future this generator can be connected to hydrogen fuel cells.