

We have developed a microcontroller-based system to continuously monitor Parker Solar Probe data and inform users.

The early warning system is activated according to the geomagnetic storm severity that it receives from the microcontroller data we have developed with the data detected via Parker Solar Probe.

We used the led (light-emitting diode) in our model to reflect the northern lights and to shine the sun. LCD (liquid-crystal display) informs the screen about the instant situation by using the data received by the screen microcontroller. With this information, the magnitude of the danger is determined. In this way, necessary measures are put into action.

While designing our model, our priority was to raise awareness of people. With this electronic system we developed, we aimed to gain time to take precautions against damages in the world. A possible major geological storm will cause disruption to GPS systems, disruptions in communication paths, and disruptions in radio frequencies. We developed this model by thinking that it has a very valuable place for the world's economic, political and climatic problems and that awareness should be raised.

While developing our project, we used a card with an ATmega328 microcontroller. We coded the card so that the Parker Solar Probe could detect the data. We used c language from Arduino IDE 2.0.0 program for coding. We used LCD (liquid-crystal display) as an informative in the early warning system. We have enabled the microcontroller to reflect the current situation on the screen by using the data received from Parker Solar Probe. We used a microcontroller based LED (light emitting diode) for the northern lights and solar modelling.