

TeamName: SalaminaSpaceDabblers

Describe your experiment and what you plan to investigate.

Our idea is to investigate the magnetic field around the earth, as the ISS goes around the earth. The noise from the powerful magnet inside ISS must also be isolated. We will investigate which earth areas are prone to solar storms using the data of magnetic field values, if the magnetic field is above a certain level then the location will be marked as highly dangerous for solar wind attraction and store the location and time in memory. Also we will try to calculate the ISS location at the time of the high level of the magnetic field.

We will investigate the magnetic field around the earth and check which areas have high levels of magnetic field in order to mark which areas are more prone to solar storms, those areas will be taken in pictures and also store the location.

Describe how you plan to use the hardware, the Sense HAT, camera and what kind of data will be gathered.

The magnetic field data will be gathered using the **magnetometer sensor** and stored in memory. The location data of the ISS can be estimated by using the initial ISS location data manually and then using the **accelerometer sensor** data with time stamps and calculations.

A message would also appear in the LCD Matrix as an alarm. Also we could use online NASA data to inform places with high level of magnetic field about a solar wind.

Also when a certain level of magnetic field is detected we can you the camera to take some pictures at intervals in order to have an image of the location.

The magnetic field data will be gathered using the magnetometer sensor . The location data of the ISS can be estimated by using the initial ISS location data manually and using the accelerometer sensor data with time stamps and calculations. When a place with high magnetic field will be detected an alarm will be shown in the LED matrix and pictures will be taken with camera and stored.