**WORK CARRIED OUT**

1. First, we studied Hall’s Effect and its different applications in detail.
2. Then, from the most important applications, we selected one which we could replicate and explain with clarity. This application was Proximity Sensing.
3. To automate this process we saw compared Arduino and Raspberry Pi and finally settled on Arduino because of its availability and ease of use.
4. We tried different Hall’s Effect sensors and finally settled on LM393 Linear Magnetic Hall Sensor.
5. Next, we wrote different programs for both Digital and Analog outputs given by the sensor.
6. In case of Analog output, we calibrated the sensor with a particular magnet, so that it gives the approximate distance of the magnet from the sensor.