**INFORMATON ABOUT ARUINO**

**Arduino** open source hardware and software company, project and user community that designs and manufactures single board microcontrollers and microcontrollers kits for building digital devices. Now a **single-board microcontroller** is a microcontroller built onto a single printed circuit board. This board provides all of the circuitry necessary for a useful control task: a microprocessor, I/O circuits, a clock generator, RAM, stored program memory and any necessary support ICs. The intention is that the board is immediately useful to an application developer, without requiring them to spend time and effort to develop controller hardware. Arduino board designs use a variety of microcontrollers and controllers. The boards are equipped with sets of digital and analog I/O pins that may be interfaced to various expansion boards ('shields') or breadboards (For prototyping) and other circuits. The original Arduino hardware was produced by the Italian company Smart Projects. Some Arduino-branded boards have been designed by the American companies SparkFun Electronics and Adafruit Industries.

INFORMATION ABOUT RFID

**R**adio **F**requency **Id**entification is a technology that allows almost any object to be wirelessly identified using data transmitted via radio waves. This technology is similar to that of bar codes or magnetic strips i.e. they all provide unique identification system. For example, if a company has 5,000 identical plastic crates, an RFID tag can be placed on each one in order to recognize crate 1,948 from crate 3,097 without requiring line of sight. The benefits of RFID are as given below

* RFID doesn’t need line of sight
* RFID tags are able to be rewritten and reused
* RFID tags can be extremely durable against impact and environmental factors
* RFID tag data is encrypted and can also be locked for extra security
* RFID tags can hold more data than other types of tags or labels
* RFID readers can read hundreds of tags within seconds
* RFID tags can have information printed on them like instructions, barcodes, or company names
* RFID systems can be integrated with other internal systems or processes

AURINO RFID READER

SOURCES -

<https://blog.atlasrfidstore.com/what-is-rfid>

<https://www.youtube.com/watch?v=CqrQmQqpHXc>

