Ardunio UNO

* A simple computer component /part of computer to do single work at a time or over and over
* It has a microcontroller and some addtional components
* Less complicated
* Not capable to do multiple programs at a time
* Language used is c/c++ - open source arduno IDE , - in windows,mac,linux
* Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online.
* No its own operating system
* Less memory
* No direct internet connectivity
* Easy to use and good for simple projects
* We can work it with a computer or supply , can simply remove the battery if we don’t use

Rapberry

* A general purpose computer
* Can do all the operations what a computer do
* Initialization is complicated – have to insert sd card,os etc
* Always need a visual display , computer screen or tv screen
* Can see videos ,music etc
* Mostly used for Iot applications
* Cant simply off the supply it can damage so proper shutdown is required
* More good for internet connected applications
* 40 times faster

ESP32 Nord MCU

* Combination of processors and controller
* Low cost device for iot applications
* Both wired and wireless communication are possible
* Wired – i2c , i2s, uart
* Wireless – wifi ,bluetooth
* Soc
* Connects bothj wifi and bluetooth
* It can connect with old and new versions of bluetooth(so can use in old phones to new tablets)
* Both wifi and bluetooth are wireless connections
* Wifi connects over internet
* Bluetooth connect 1 device to another max range 40 feet
* In built ADC and DAC
* Temperature sensor and capacitive touch sensor
* RTC – 24 hr clock
* C/c++ easy to program on arduni uno open source software