

Analog – Used to describe signals and waves. Describes the waves as continuous with varying levels.

Digital – Used to describe signals and waves. Describes the waves as discrete on or off.

Application Programming Interface (API) – Used to provide a method of communication between programs. These can be utilized for programs running on the same machine, or the internet can be used to allow the programs to communicate from separate machines, possibly on different networks.

Bandwidth – A range of frequencies used in a band for data communication.

Broadband – Communication using wide bandwidth, allowing for sending and receiving many signals simultaneously.

Dynamic Host Configuration Protocol (DHCP) –leases local IP addresses to devices when connecting.

Frequency Band – A group of frequencies used for telecommunications.

General Purpose Input/Output (GPIO) – is a designation given to pins. Serves no specific connects purpose, but instead lets the developer read or write a signal to the pin.

Graphics Processing Unit (GPU) – Similar to a processor, but specifically designed for mathematic computations, usually for rendering graphics.

Internet – Interconnected Networks\Servers. Smaller networks connecting to make up the larger internet. The smaller networks belong to businesses as well as individuals. All of which are just there to serve the requestor with some information wheter a file or routing info.

Internet of Things (IoT) – Simple devices that can be used to send data over the internet.

IP Address – Like a street address, represents the location of a device connected to the internet

Local Area Network (LAN) – The network that the device is connected to. This network connects devices allowing them to use a local address to communicate.

Local IP Address – A separate IP address used only on your local network.

LoRa – Short for Long Range. Communication protocol for long range data transfers.

Microcomputer – A small computer that can be used for general purpose processing. Generally chosen for projects when either several tasks or on more complicated task needs to be performed.

Microcontroller – A small device used for controlling sensors or other devices. Generally chosen for projects when one simple task needs to be performed.

Parallel (as in communication) – At the same time.

Serial (as in communication) – In order.

Pins – A connection on a computer chip used to send and receive signals. Also, the metal connections on the edge of the board included in the Pete kit.

Processor – The brain of the computer. Handles logical tasks best but can also perform mathematic computations with ease.

Public IP Address – IP Address that is available to the public internet. Anyone can see this address and is how people can gain access to your network.

Random Access Memory (RAM) – *Volatile* form of memory that can quickly be accessed by the processor.

Wide Area Network (WAN) – Consists of local area networks. Combining these networks allows for communication between the networks.

Wi-Fi – Standard data communication protocol for connecting devices to the internet. Short range.

Database – An organized method of storing information. Different software allows for different methods of accessing this data. Commonly abbreviated as DB.

Query – A request for information.

HTTP REST API – Web based API used to communicate with online services. Commands such as “GET”, “POST”, and “DELETE” specify what is to be done with the data, and a body is sent with the request containing additional information, specified by the API.

NoSQL (Nonrelational) – A database whose entries don’t necessarily have to match in terms of data entered.

Resistance – The amount of force preventing current to flow through. Measured in Ohms(Ω). In a pipe analogy this would be the value on the spicket preventing water from flowing.

Current – The flow of electric charge. Measured in Amps(A). In a pipe analogy this would be the amount of water flowing.

Voltage – The force acting on the current. This would be like increasing the speed of water pump increasing the water pressure.

Capacitance – the ability of a component or circuit to collect and store electric charge.