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## What is a Raspberry Pi??

The Raspberry Pi is a series of single small board computers and was invented to promote teaching of basic computer science. It plugs into a monitor and uses a standard keyboard and mouse. It is a capable little device that enables people of all ages to explore computing, and to learn how to program in multiple languages. The raspberry pie is a cheap computer that runs in Linux, but it also provides a set of GPIO pins that allow us to control electronic components for physical computing and explore the internet. The Raspberry Pi operates in an open source and its main supporting system is called Raspbian.

## Raspberry Pi history

### Pre-Launch:

The Raspberry Pi concepts were started in early 2006, it was based on the Atmel ATmega644 microcontroller. The foundations goal was to offer two versions, priced at 25 and 35 dollars. On July 2011, the NOOBS port was invented by trustee Eben Upton. A couple of months later in August, 50 alpha boards were manufactured. These boards were functionally identical to the planned Model B, but they were physically larger to

accommodate debug headers. A couple months down the line, twenty-five Model B boards were assembled and tested. A single error was discovered in the board design where some pins on the CPU were not held high. In early 2012, the first 10 boards were put up for action on eBay.

Launch:

On February 19, 2012 the first proof of the concept SD card image that would be loaded onto an SD card to produce preliminary operating system was released. On this day, it was announced that the Model A will have 256MB of RAM when before it was only 128MB. A very big difference in size. The Raspberry Pi foundation stated, “Premier Farnell sold out within a few minutes of the initial launch, while RS Components took over 100,000 pre orders on day one” (Wiki 1).

### Types of a Raspberry Pi

There are many different types of a Raspberry Pi. They consist of Raspberry Pi 1 model B, Raspberry Pi 1 model A, Raspberry Pi 1 model B+, Raspberry Pi 1 model A+, Raspberry Pi Zero, Raspberry Pi 2, Raspberry Pi 3 model B, and Raspberry Pi Zero W.

### RISC AND CISC processor

A RISC stands for “Reduced Set Instruction set Architecture” and it used to make hardware more simply by using a set of instruction that is set to compose a few basic steps for loading, evaluating and storing operations. A CISC stands for “Complex

Instruction Set Architecture” and it is used to make hardware complex as a single instruction that will do all loading and evaluating and storing operations juts like a multiplication command while RISC uses addition command.

The Raspberry Pi is a very effective and efficient work in the computer science industry. Students can do hands out work and learn about processors and how the Raspberry Pi works. A lot of students have more success in the classroom when their doing hands on work, instead of reading slides from the screen and taking tests about it when they have never seen one in person. The Raspberry Pi is a very powerful tool and it will only keep getting more powerful years down the road. This assignment has really helped me understand what a Raspberry Pi is, how it works, the many kinds of Raspberry Pi, and just how effective a couple of circuits can be.

## References

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