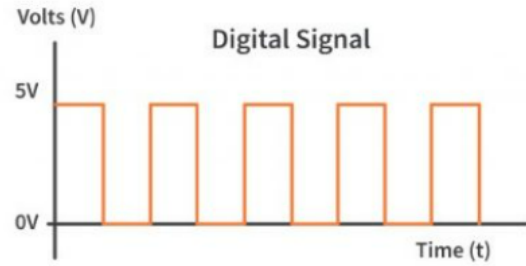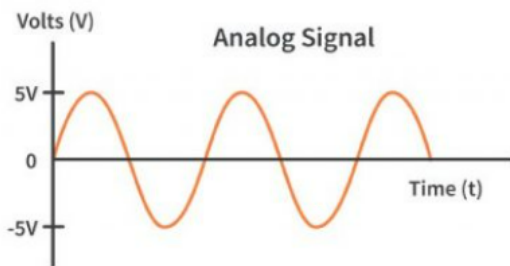# Analog and PWM

Object: we will learn how to control the brightness of a LED

Component List : LED, Resistor 220 ohm, Jumper wire and a RaspberryPi

Difference between analog and digital signal:

An analog signal is a continuous signal in both time and value, on the contrary a digital signal is a time series consisting of a sequence of quantities.

The analog signals are "**Curved Waves**" and the digital signals are "**Square Waves**"

PWM: pulse width modulation is a method for using digital signals to control analog signals

Circuit: we will use the GPIO18 which has the ability to output to hardware via PWM with 10 bit accuracy.