Hello Friends, Welcome to the video tutorial on the Raspberry Pi.

In this tutorial we will learn how to enable spi interface on raspberry pi

First let us first understand what is spi.

SPI stands for Serial peripheral interface.

It is a synchronous communication protocol used to transfer data between micro-computers like the Raspberry Pi and peripheral devices.

These peripheral devices may be either sensors or actuators.

SPI uses 4 separate connections to communicate with the target device.

These connections are:

1. Serial clock (CLK)

Master generates the clock.

All the SPI signals are synchronous to this clock signal

1. Master Input Slave Output (MISO)

The MISO pin is a data pin used for the master (in this case the Raspberry Pi) to receive data from the slave. Data is read from the bus after every clock pulse.

1. Master Output Slave Input (MOSI) and

The MOSI pin sends data from the Raspberry Pi to the slave.

1. Chip Select (CS).

the Chip Select line chooses which particular SPI device is in use.

If there are multiple SPI devices, they can all share the same CLK, MOSI, and MISO. However, only the selected device has the Chip Select line set low, while all other devices have their CS lines set high. A high Chip Select line tells the SPI device to ignore all of the commands and traffic on the rest of the bus.

Now let us take a look how to enable spi interface.

Open lx terminal and type sudo raspi-config and hit enter

This will launch the raspi-config utility. Select option 8 “Advanced Options".

Select the “SPI" option.

Set the option to “Yes".

Select “OK".

Select “Finish".

Reboot rpi for changes to take effect :

sudo reboot

SPI is now enabled.

Now let us check whether spi is enabled or not

Open lxterminal type lsmod hit enter

If spi\_bcm2708 and spi\_bcm2835 is listed in the output.

Hence, SPI is enabled.