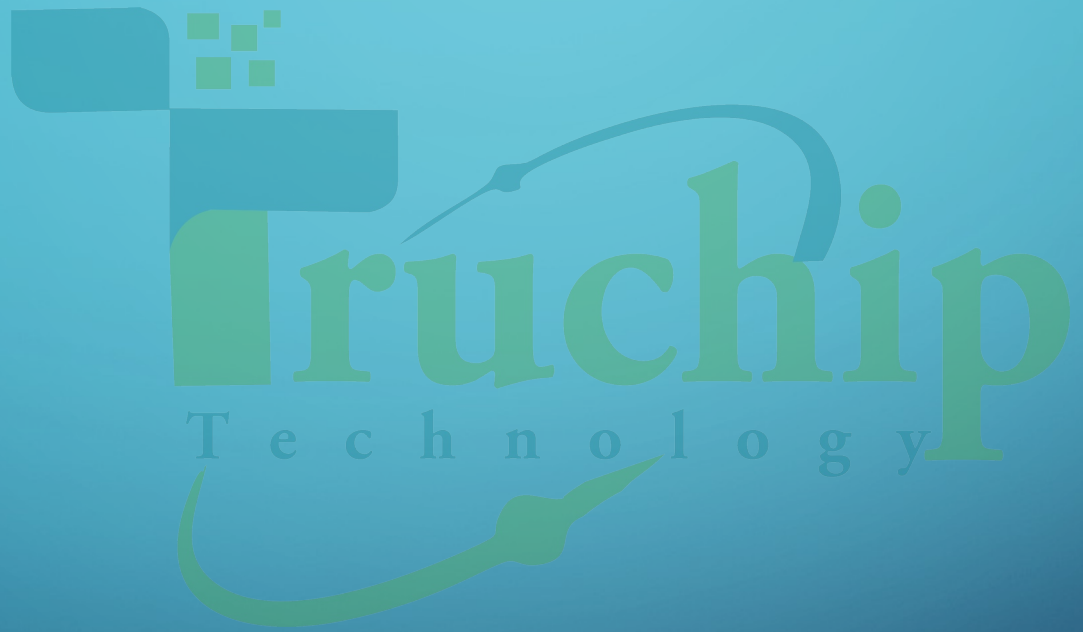
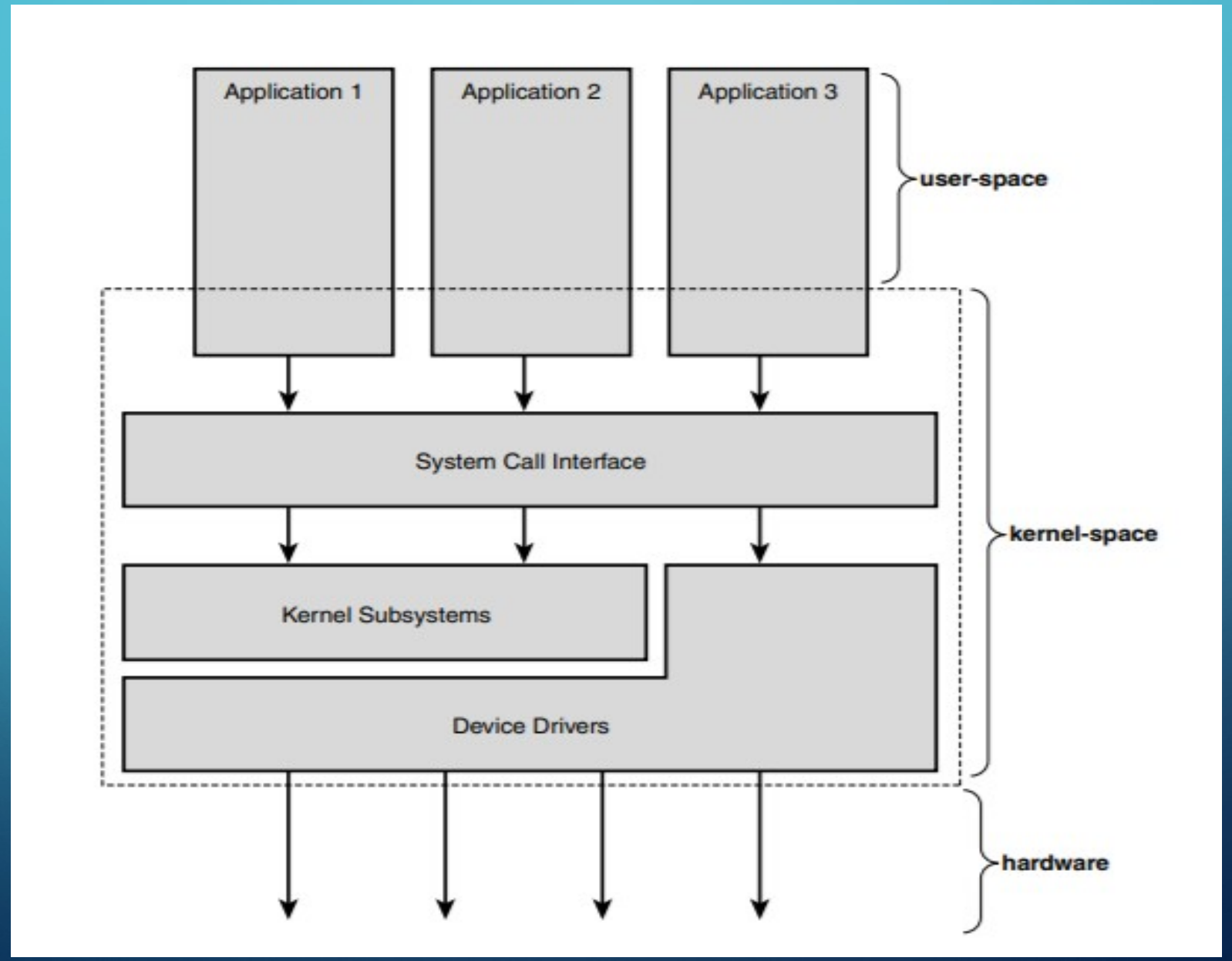
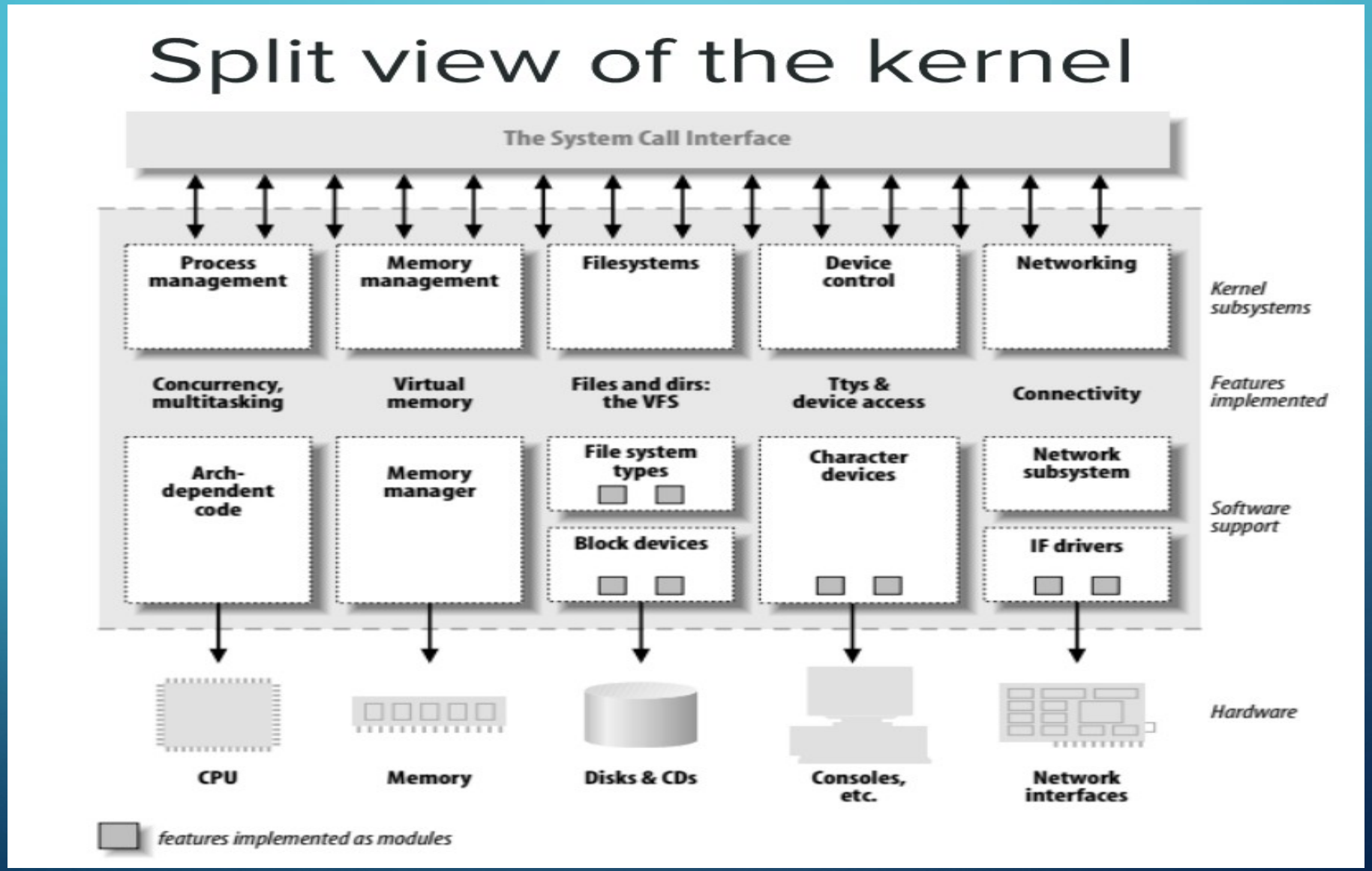


MASTER LINUX DEVICE DRIVERS WEBINAR

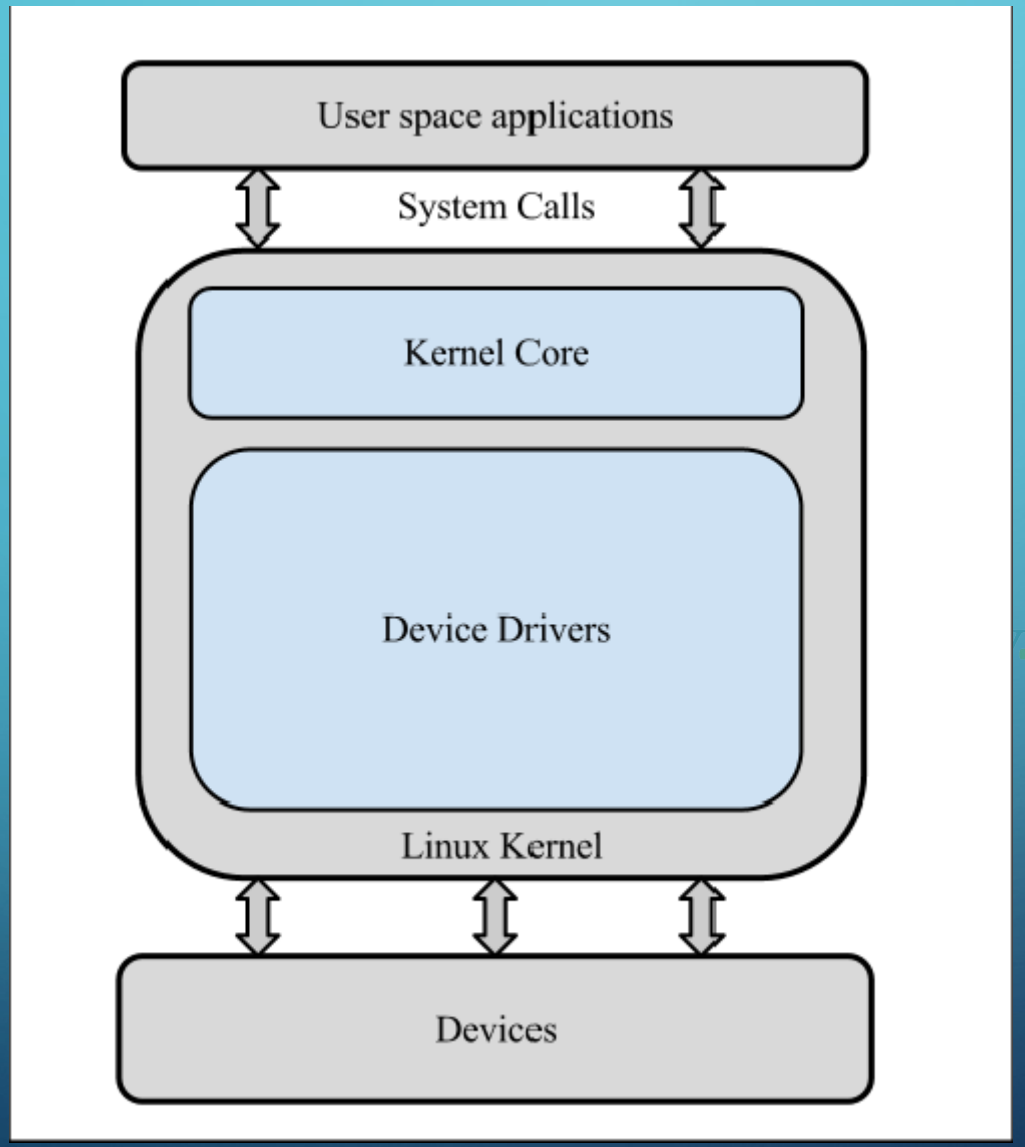
INTRODUCTION TO LINUX KERNEL



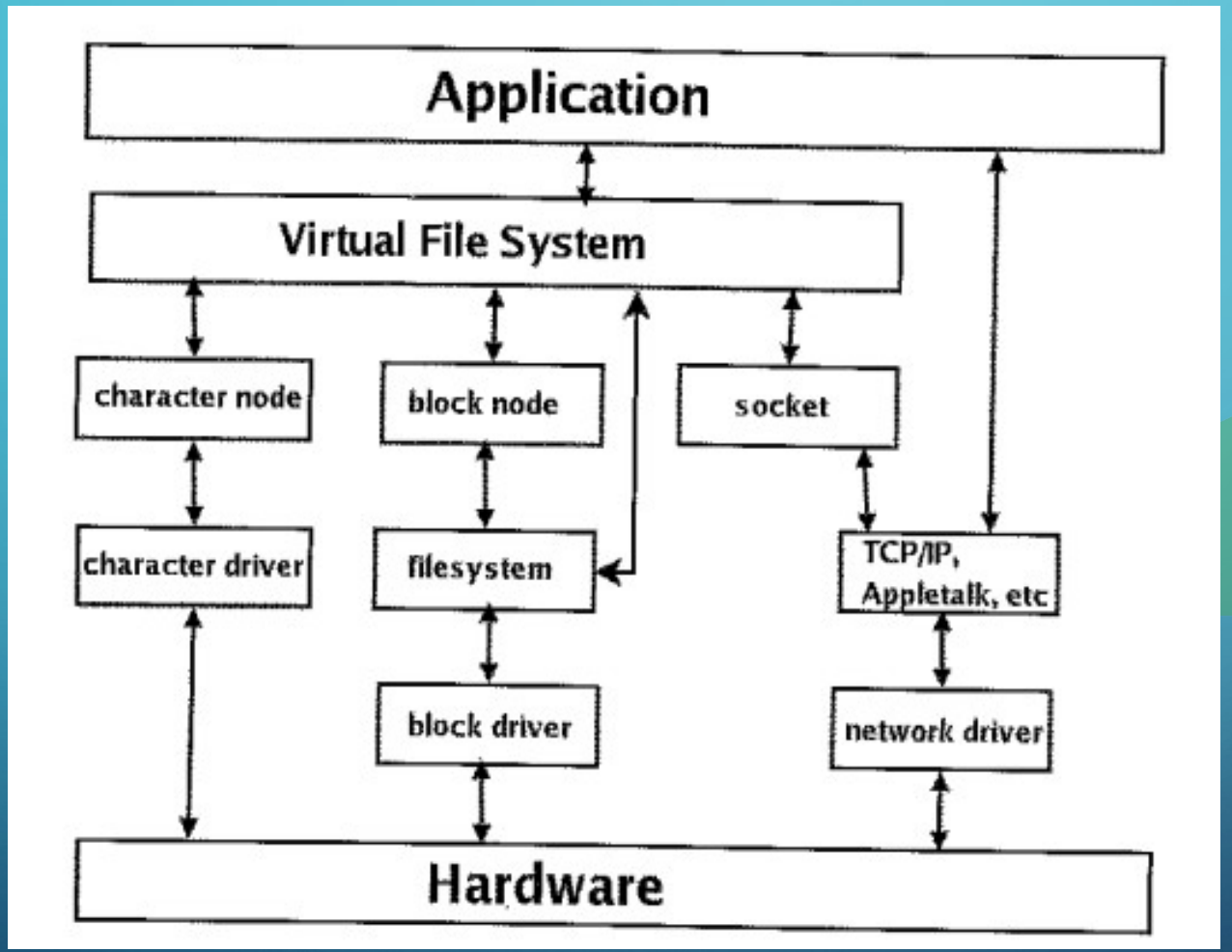
INTRODUCTION TO LINUX KERNEL



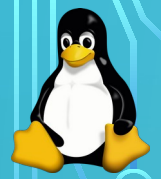
INTRODUCTION TO LINUX KERNEL

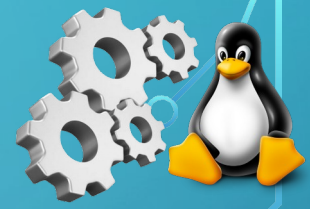


CLASSIFICATION OF DRIVER



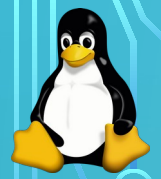
INTRODUCTION TO EMBEDDED LINUX

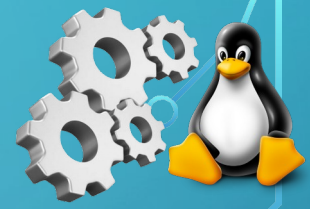




- The Linux drivers are classified into three categories:
  - Character Driver
    - Can be written to and read from a byte at a time
    - Well represented as streams
    - Usually permit only sequential access.
    - Can be considered as files
    - Implement open, close, read, and write functions.
    - Serial/parallel ports console (monitor and keyboard) etc
    - Example /dev/tty0, /dev/ttyS0 etc.

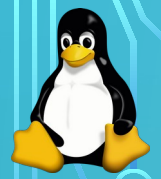
CLASSIFICATION OF DRIVER

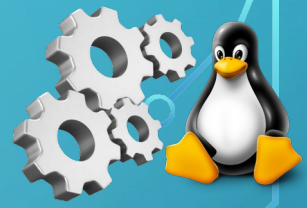




- Block Driver
  - Can be written to and read from only a block size multiples access is usually cached
  - Permit random access
  - Filesystem can be mounted on these devices
  - In Linux block devices can behave like character devices, transferring any number of bytes at a time.
  - Hard drives, CDROMS Etc.
  - Examples: /dev/hda1, /dev/fd0 etc.

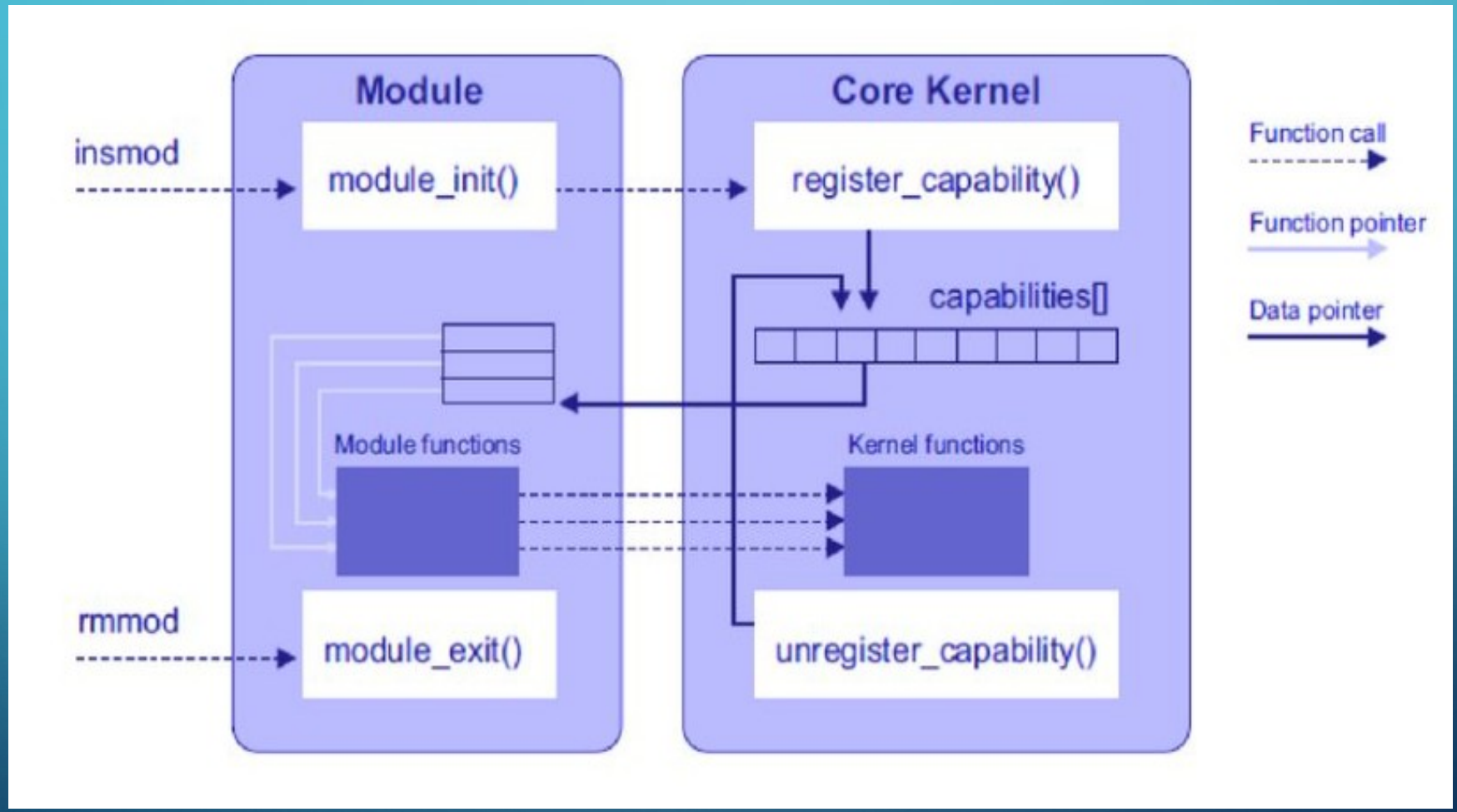
CLASSIFICATION OF DRIVER

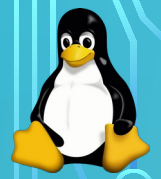




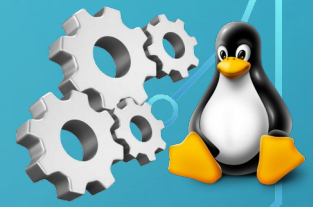
- Network Driver
  - Transfer packets of data, device sees the packets , not the streams
  - Most often accessed via the BSD socket interfaces
  - Instead of read, write the kernel calls packet reception and transmission functions.
  - Network interfaces are not mapped to the filesystem; they are identified by a name.
  - Example eth0, ppp0 etc.

KERNEL MODULE



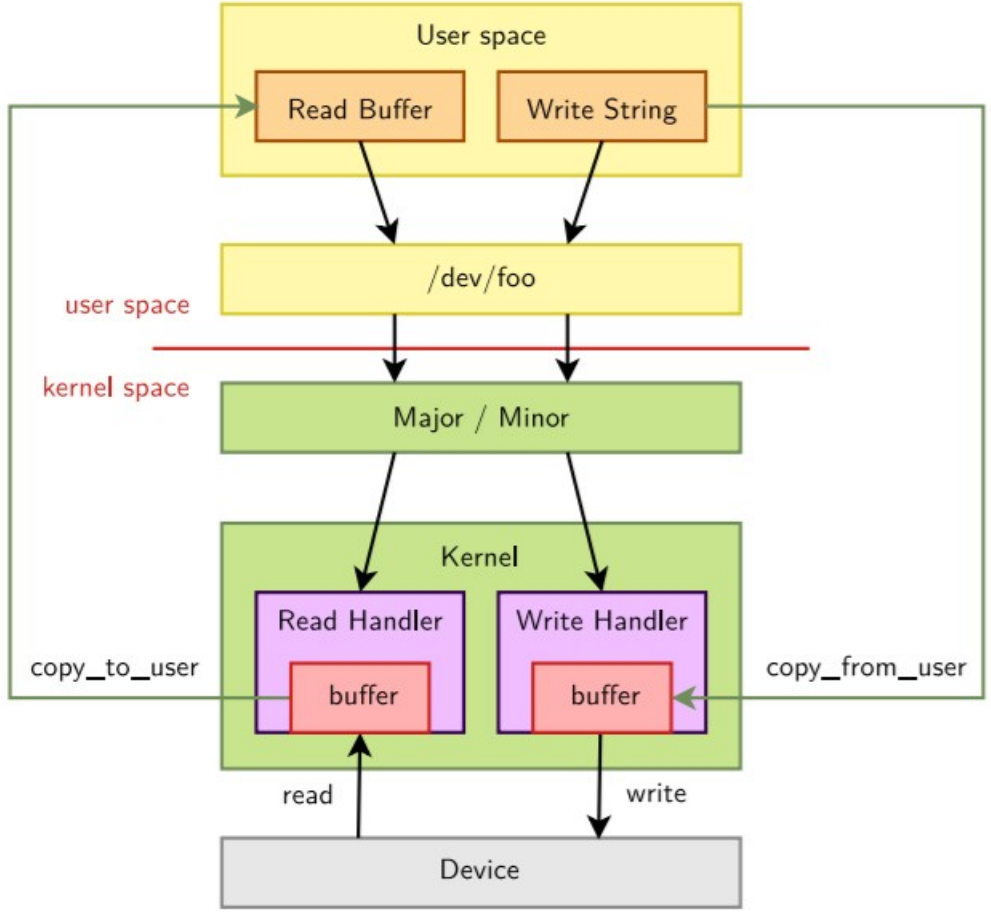


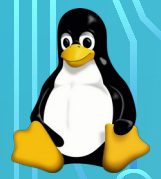
KERNEL MODULE

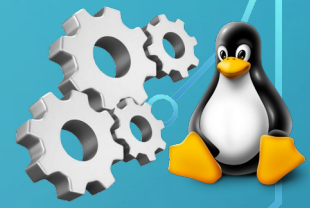


Hello World Kernel module

CHARACTER DEVICE DRIVER

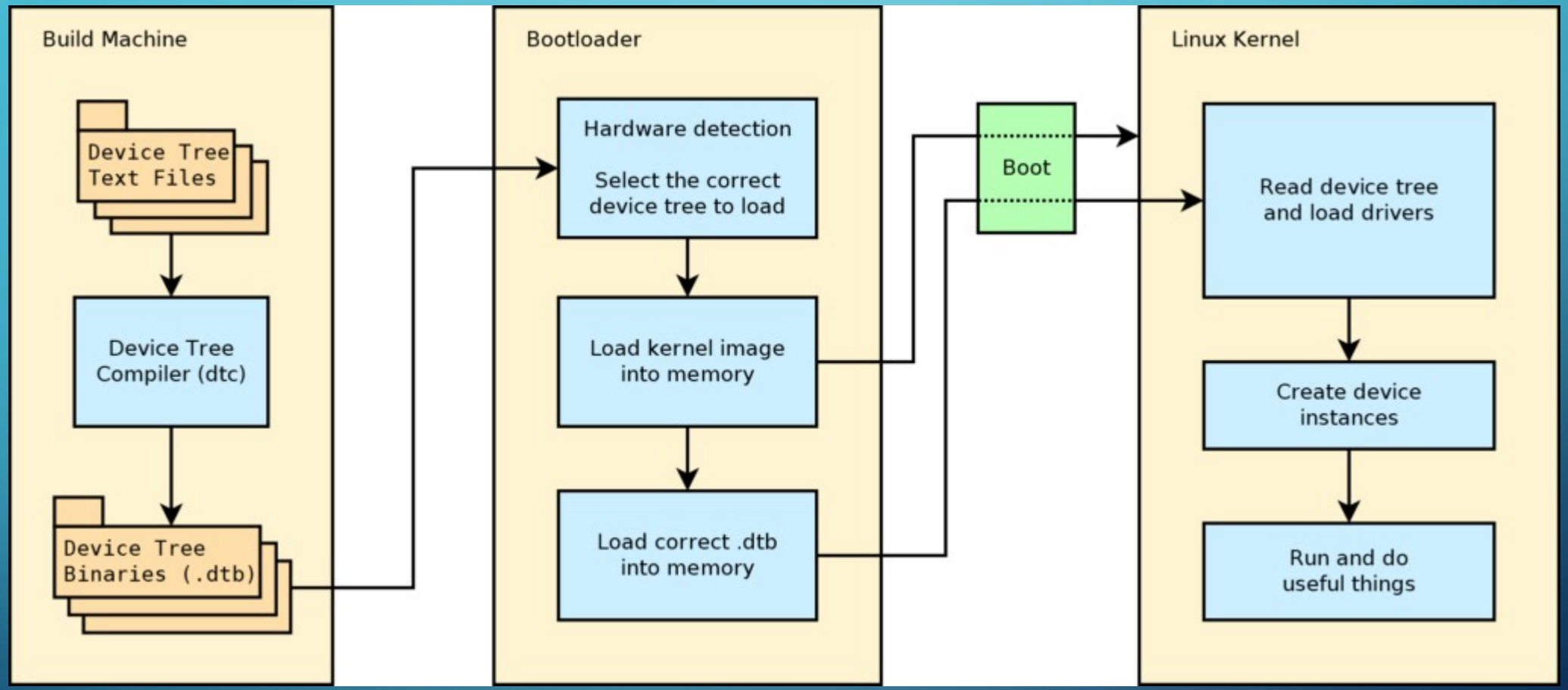


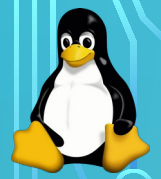




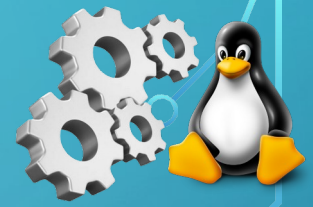
CHARACTER DEVICE DRIVER

PLATFORM DRIVER



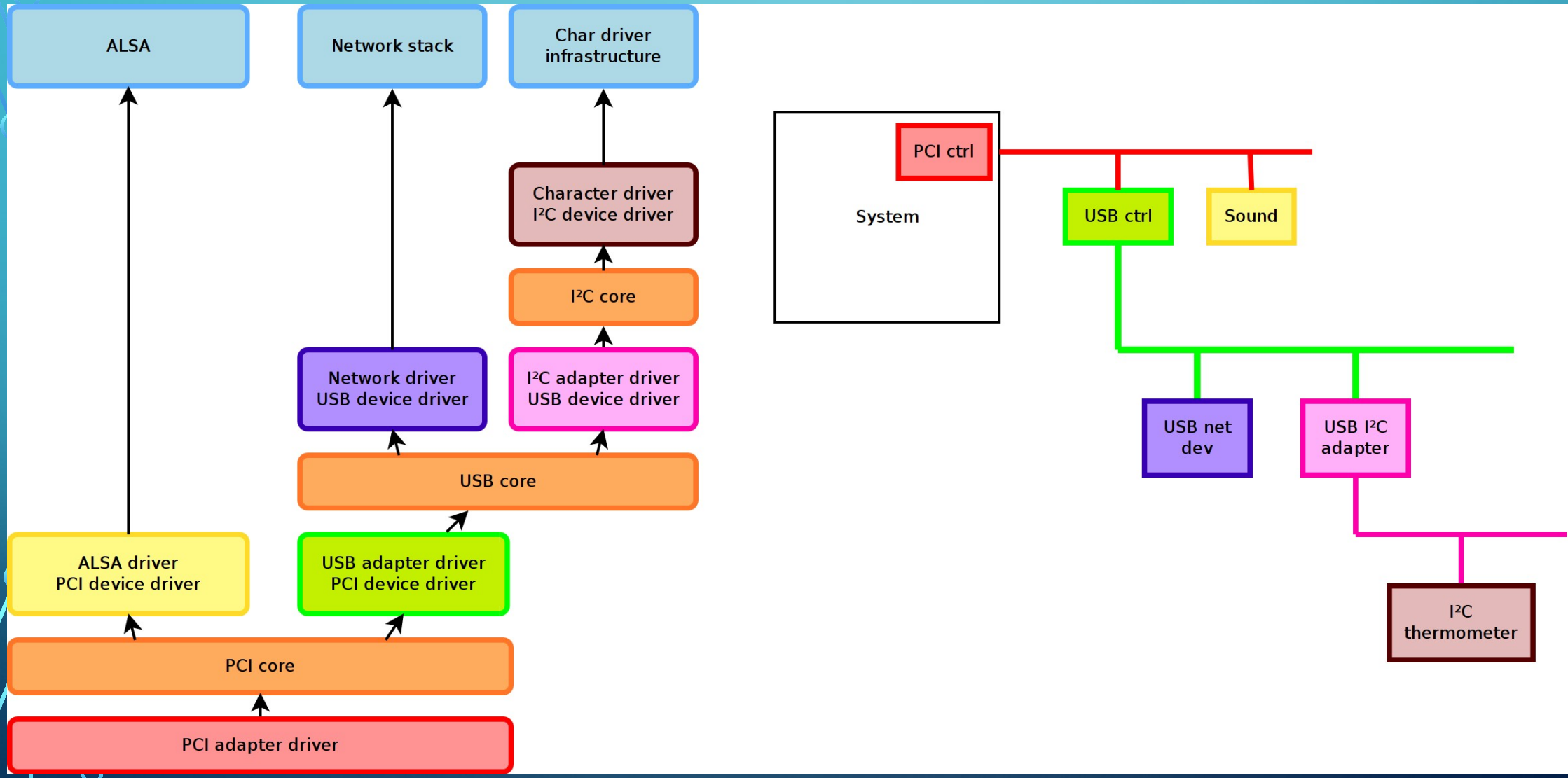


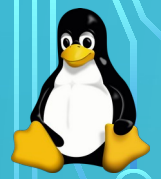
CHARACTER DEVICE DRIVER



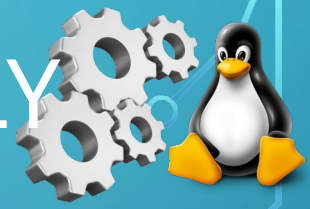
PLATFORM DEVICE DRIVER

ADVANCED DEVICE DRIVER



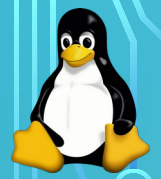


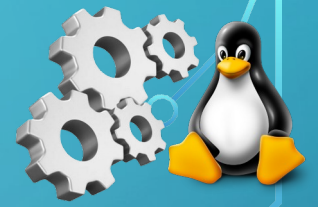
YOCTO TRAINING WILL START FROM 26TH JULY



- In depth Training on yocto will start from 26th July
- Weekend Classes/ 4 hrs per week
- Every participant will have access to LMS
  - Materials will be uploaded in LMS
  - Weekly Assignments
  - Project at the end of the Course
  - Grades and Certificate will be provided after successful completion of the course

For details visit www.truchiptechnology.com





THANK YOU ☺