

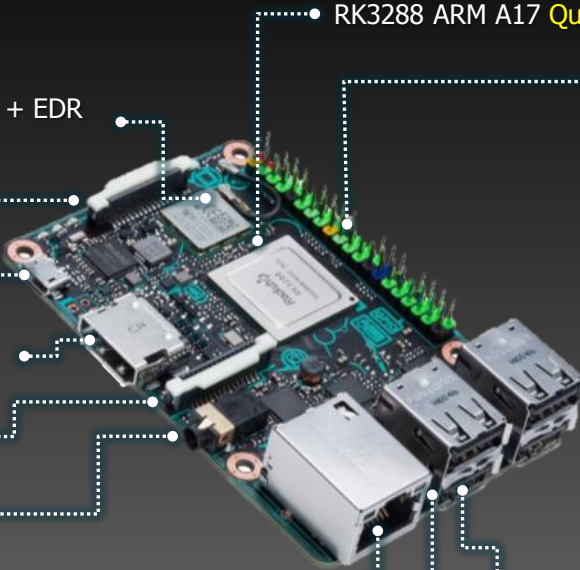
Tinker Your Way to the Future

Design Concept

***Together We Make** is Tinker Board's underpinning concept: the idea that technology and users work together in harmony to create great things. Tinker Board is the little PCB that taps into the revived obsession with DIY, offering a new generation of makers a way to realize their dreams.*



Product Overview



802.11 b/g/n Wi-Fi & Bluetooth 4.0 + EDR
with upgradable i-PEX antenna header

MIPI Display with 720P

Power-in jack

HDMI with
4K content decode capability*

Camera interface

192K/24bit
HD Audio

OS:

Debian

KODI

Gbit Ethernet

4 x USB 2.0

RK3288 ARM A17 Quad-cores 1.8Ghz SoC + 2GB RAM

40-pins GPIO header

Reserve for sensor, LED, switch,
button, motor...peripherals

VCC33_IO	1	2	VCC_SYS
GP8A4_I2C1_SDA	3	4	VCC_SYS
GP8A5_I2C1_SCL	5	6	GND
GPOC1_CLKOUT	7	8	GP5B1_UART1TX
GND	9	10	GP5B0_UART1RX
GP5B4_SPIOCLK_UART4CTS	11	12	GP6A0_PCM_CLK
GP5B6_SPIO_TXD_UART4TX	13	14	GND
GP5B7_SPIO_RXD_UART4RX	15	16	GP5B2_UART1CTS
VCC33_IO	17	18	GP5B3_UART1RTSN
GP8B1_SPI2TXD	19	20	GND
GP8B0_SPI2RXD	21	22	GP5C3
GP8A6_SPI2CLK	23	24	GP8A7_SPI2CSN0
GND	25	26	GP8A3_SPI2CSN1
GP7C1_I2C4_SDA	27	28	GP7C2_I2C4_SCL
GP5B5_SPIOCSN0_UART4RTSN	29	30	GND
GP5C0_SPIOCSN1	31	32	GP7C7_UART2TX_PWM3
GP7C6_UART2RX_PWM2	33	34	GND
GP6A1_PCM_FS	35	36	GP7A7_UART3RX
GP7B0_UART3TX	37	38	GP6A3_PCM_SDI
GND	39	40	GP6A4_PCM_SDO

S/PDIF (Contact Point) 41 42 PWM (Contact Point)



Other Package Contents:



Color Box



Quick start guide



ESD shielding bag



Heatsink

*The max resolution is up 4K@30hz (up-scaled from FHD(1080P))

Suitable Scenario



- For **MAKER**

- A powerful board that highly compatible with current solution and peripherals available in the market



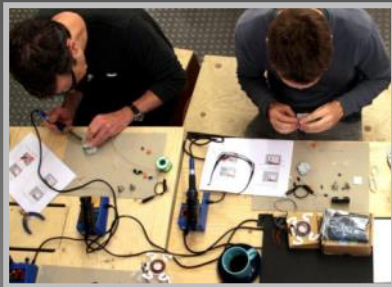
- For **EDUCATION**

- Electronics learning
- Programming/coding study



- For **Commercial**

- Low power consumption with high performance platform



How to Get it Start

Tinker Board is a capable little computer which can be used in electronics projects, and for many of the things that your desktop PC does

Requirement:

- 1 x Monitor with HDMI cable
- 1 x Keyboard/Mouse set
- 1 x MicroSD card with 8GB capacity
- 1 x Micro USB AC adaptor*

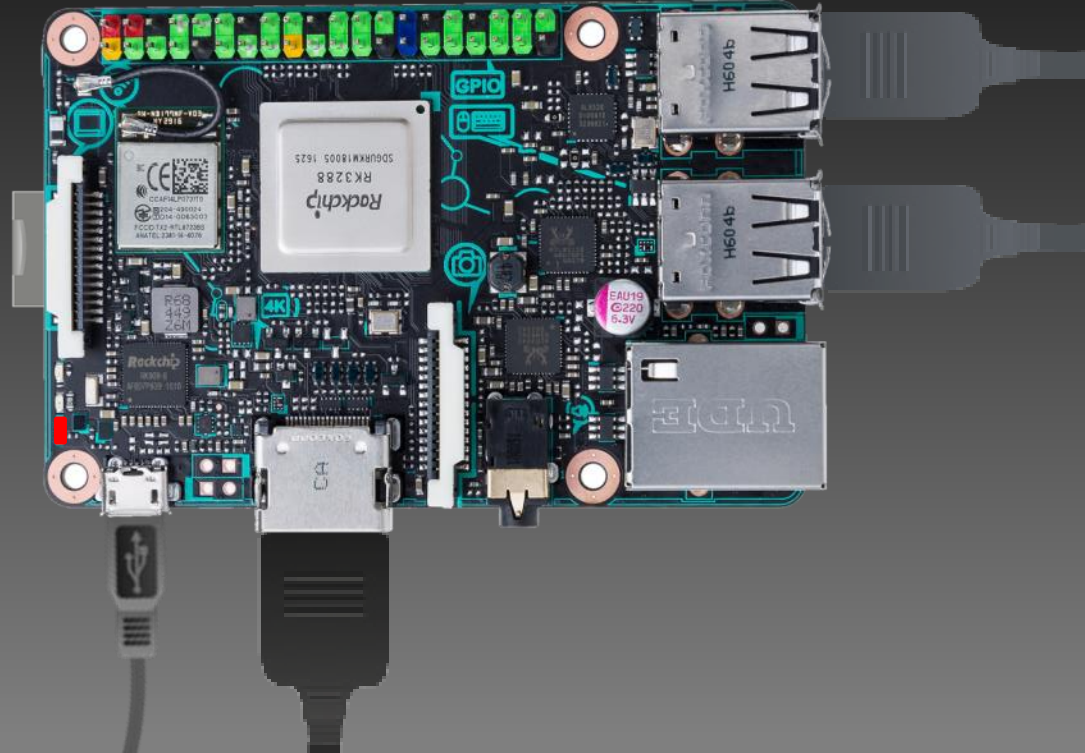
Download the available OS and burn into MicroSD card

Connect HDMI Cable to Monitor

Connect USB Keyboard & Mouse

Connect USB Power Supply

Boot UP

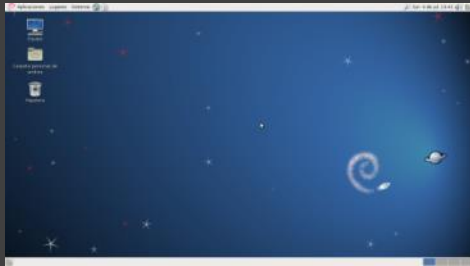


*Please select the USB adaptor with 5V/2A power rating and LPS marking.

Tinker OS and its Usage Scenarios



Debian is a free operating system (OS) for your computer. An operating system is the set of basic programs and utilities that make your computer run.



C/C++



Kodi media center, formerly known as XBMC™ Media Center, is an award-winning free and open source cross-platform software media player and entertainment hub for digital media for HTPCs (Home theater PCs).



Coming Soon™ OS



Learn More

Besides the entry product information, Tinker Board will also release the schematics, mechanical drawing, GPIO API for power users' interesting creations.

Hardware Schematics



2D/3D Drawing



C/Python/Scratch API



Detail Product Specification

	TINKER BOARD/2GB
Processor	Cortex-A17 Quad-core 1.8GHz
GPU	ARM Mali-T764 GPU supports Support OpenGL ES1.1/2.0/3.0, OpenVG1.1, OpenCL, DirectX11
Display	1 x HDMI with 4K/30fps (upscaled from 1080p) 1 x 15-pin MIPI DSI supports up to HD
Memory Size	Dual-CH LPDDR3 2GB
Storage	Micro SD(TF) card slot
Connectivity	1 x GB LAN 1 x wireless 802.11 b/g/n & BT 4.0 + EDR
Audio	RTL HD Codec with 1 x 3.5mm audio jack
USB	4 x USB 2.0 ports
Internal Headers	1 x 40-pin headers includes: <ul style="list-style-type: none">- up to 28 x GPIO pins- up to 2 x SPI bus- up to 2 x I2C bus- up to 4 x UART- up to 2 x PWM- up to 1 x PCM/I2S- 2 x 5V power pins- 2 x 3.3V power pins- 8 x ground pins 1 x 2-pin contact points includes: <ul style="list-style-type: none">- 1 x PWM signal- 1 x S/PDIF signal
Power Connector	Micro USB (5V/2~2.5A)
OS Support	Debian/KODI
Dimension	3.37" x 2.125"

