

# Prática 02

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# Pinagem

## DOIT ESP32 DEVKIT V1 PINOUT

Chip-enable signal, Active High.				EN	pin15				
ADC PA	RTC_GPIO0	ADC1_CH0	SENSOR_VP	GPIO36	pin14	pin15	GPIO23	SPI_MOSI	HS1_STROBE
ADC PA	RTC_GPIO3	ADC1_CH3	SENSOR_VN	GPIO39	pin13	pin14	GPIO22	EMAC_TXD1	U0RTS
	RTC_GPIO4	ADC1_CH6	VDET1	GPIO34	pin12	pin13	GPIO1	EMAC_RXD2	U0TXD
	RTC_GPIO5	ADC1_CH7	VDET2	GPIO35	pin11	pin12	GPIO3	U0RXD	CLK_OUT3
XTAL_32kHz	Touch9	RTC_GPIO9	ADC1_CH4	GPIO32	pin10	pin11	GPIO21	EMAC_TX_EN	I2C_SDA
XTAL_32kHz	Touch8	RTC_GPIO8	ADC1_CH5	GPIO33	pin9	pin10	GPIO19	EMAC_TXD0	U0CTS
DAC_1	RTC_GPIO6	ADC2_CH8	EMAC_RXD0	GPIO25	pin8	pin9	GPIO18	SPI_CLK	HS1_DATA7
DAC_2	RTC_GPIO7	ADC2_CH9	EMAC_RXD1	GPIO26	pin7	pin8	GPIO5	EMAC_RX_CLK	SPI_CS0
Touch7	RTC_GPIO17	ADC2_CH7	EMAC_RX_DV	GPIO27	pin6	pin7	GPIO17	EMAC_CLKOUT180	U2_TXD
HS2_CLK	SD_CLK	HSPI_CLK	MTMS	Touch6	RTC_GPIO16	pin6	GPIO16	EMAC_CLKOUT	U2_RXD
HS2_DATA2	SD_DATA2	HSPI_MISO	MTDI	Touch5	RTC_GPIO15	pin5	GPIO4	EMAC_TX_ER	ADC2_CH0
HS2_DATA3	SD_DATA3	HSPI_MOSI	MTCK	Touch4	RTC_GPIO14	pin4	GPIO2	ADC2_CH2	RTCIO10
						pin3	GPIO15	EMAC_RXD3	ADC2_CH3
						pin2	GND	RTCIO12	Touch2
						pin1	VDD 3V3	RTCIO13	Touch3
								MTDO	HSPI_CS0
								SD_DATA1	HS2_DATA1
								SD_CMD	HS2_CMD

POWER
GND
Serial Pin
Analog Pin
Control
Physical Pin
Port Pin
Touch Pin
DAC Pin



# Datasheet

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- ☐ [http://espressif.com/sites/default/files/documentation/esp32\\_technical\\_reference\\_manual\\_en.pdf](http://espressif.com/sites/default/files/documentation/esp32_technical_reference_manual_en.pdf)
- ☐ [https://espressif.com/sites/default/files/documentation/esp-wroom-32\\_datasheet\\_en.pdf](https://espressif.com/sites/default/files/documentation/esp-wroom-32_datasheet_en.pdf)
- ☐ [https://dl.espressif.com/dl/schematics/ESP-WROOM-32-v3.2\\_sch.pdf](https://dl.espressif.com/dl/schematics/ESP-WROOM-32-v3.2_sch.pdf)

# Usando o Touch

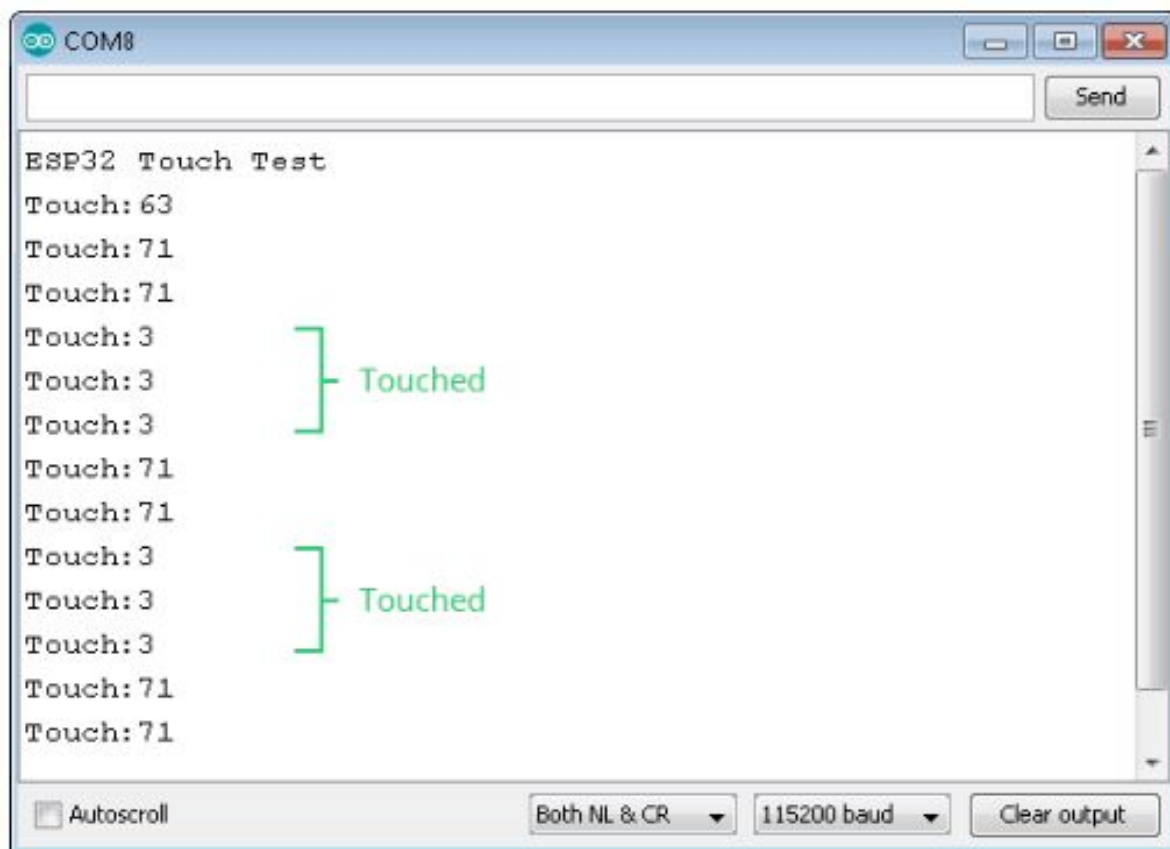
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☐ Possui 10 sensores capacitivos internos

- ☐ T0: GPIO 4
- ☐ T1: GPIO 0
- ☐ T2: GPIO 2
- ☐ T3: GPIO 15
- ☐ T4: GPIO 13
- ☐ T5: GPIO 12
- ☐ T6: GPIO 14
- ☐ T7: GPIO 27
- ☐ T8: GPIO 33
- ☐ T9: GPIO 32

☐ Para lê-los, você deve usar a função: ***touchRead (Touch Pin #);***

# Exemplo 01



```
// ESP32 Touch Test
// Just test touch pin - Touch0 is T0 which is on GPIO 4.

void setup() {
  Serial.begin(115200);
  delay(1000); // give me time to bring up serial monitor
  Serial.println("ESP32 Touch Test");
}

void loop() {
  Serial.print("Touch: ");
  Serial.println(touchRead(4)); // get touch value on GPIO 4
  delay(1000);
}
```

