

# ADC2 channel cannot be used when WiFi is in use

ADC2 is used with WiFi. Therefor ***analogRead()*** on ADC2 pins fails. ADC1 channels are save to use ⇒ GPIO32, 33, 34, 35, 36, 39.

This list is an extract of the ESP-WROOM-32 pin definition ([Source](#)) and might help to find ADC1 and ADC2 pins:

Name	Function
<b><i>SENSOR_VP</i></b>	GPIO36, SENSOR_VP, ADC_H, <b><i>ADC1_CH0</i></b> , RTC_GPIO0
<b><i>SENSOR_VN</i></b>	GPIO39, SENSOR_VN, <b><i>ADC1_CH3</i></b> , ADC_H, RTC_GPIO3
<b><i>IO34</i></b>	GPIO34, <b><i>ADC1_CH6</i></b> , RTC_GPIO4
<b><i>IO35</i></b>	GPIO35, <b><i>ADC1_CH7</i></b> , RTC_GPIO5
<b><i>IO32</i></b>	GPIO32, XTAL_32K_P (32.768 kHz crystal oscillator input), <b><i>ADC1_CH4</i></b> , TOUCH9, RTC_GPIO9
<b><i>IO33</i></b>	GPIO33, XTAL_32K_N (32.768 kHz crystal oscillator output), <b><i>ADC1_CH5</i></b> , TOUCH8, RTC_GPIO8
<b><i>IO25</i></b>	GPIO25, DAC_1, <b><i>ADC2_CH8</i></b> , RTC_GPIO6, EMAC_RXD0
<b><i>IO26</i></b>	GPIO26, DAC_2, <b><i>ADC2_CH9</i></b> , RTC_GPIO7, EMAC_RXD1
<b><i>IO27</i></b>	GPIO27, <b><i>ADC2_CH7</i></b> , TOUCH7, RTC_GPIO17, EMAC_RX_DV
<b><i>IO14</i></b>	GPIO14, <b><i>ADC2_CH6</i></b> , TOUCH6, RTC_GPIO16, MTMS, HSPICLK, HS2_CLK, SD_CLK, EMAC_TXD2
<b><i>IO12</i></b>	GPIO12, <b><i>ADC2_CH5</i></b> , TOUCH5, RTC_GPIO15, MTDI, HSPIQ, HS2_DATA2, SD_DATA2, EMAC_TXD3
<b><i>IO13</i></b>	GPIO13, <b><i>ADC2_CH4</i></b> , TOUCH4, RTC_GPIO14, MTCK, HSPID, HS2_DATA3, SD_DATA3, EMAC_RX_ER
<b><i>IO15</i></b>	GPIO15, <b><i>ADC2_CH3</i></b> , TOUCH3, MTDO, HSPICS0, RTC_GPIO13, HS2_CMD, SD_CMD, EMAC_RXD3
<b><i>IO2</i></b>	GPIO2, <b><i>ADC2_CH2</i></b> , TOUCH2, RTC_GPIO12, HSPIWP, HS2_DATA0, SD_DATA0
<b><i>IO0</i></b>	GPIO0, <b><i>ADC2_CH1</i></b> , TOUCH1, RTC_GPIO11, CLK_OUT1, EMAC_TX_CLK
<b><i>IO4</i></b>	GPIO4, <b><i>ADC2_CH0</i></b> , TOUCH0, RTC_GPIO10, HSPIHD, HS2_DATA1, SD_DATA1, EMAC_TX_ER