

IA Training Camp 2019

Informatica Applicata – Università degli Studi di Urbino

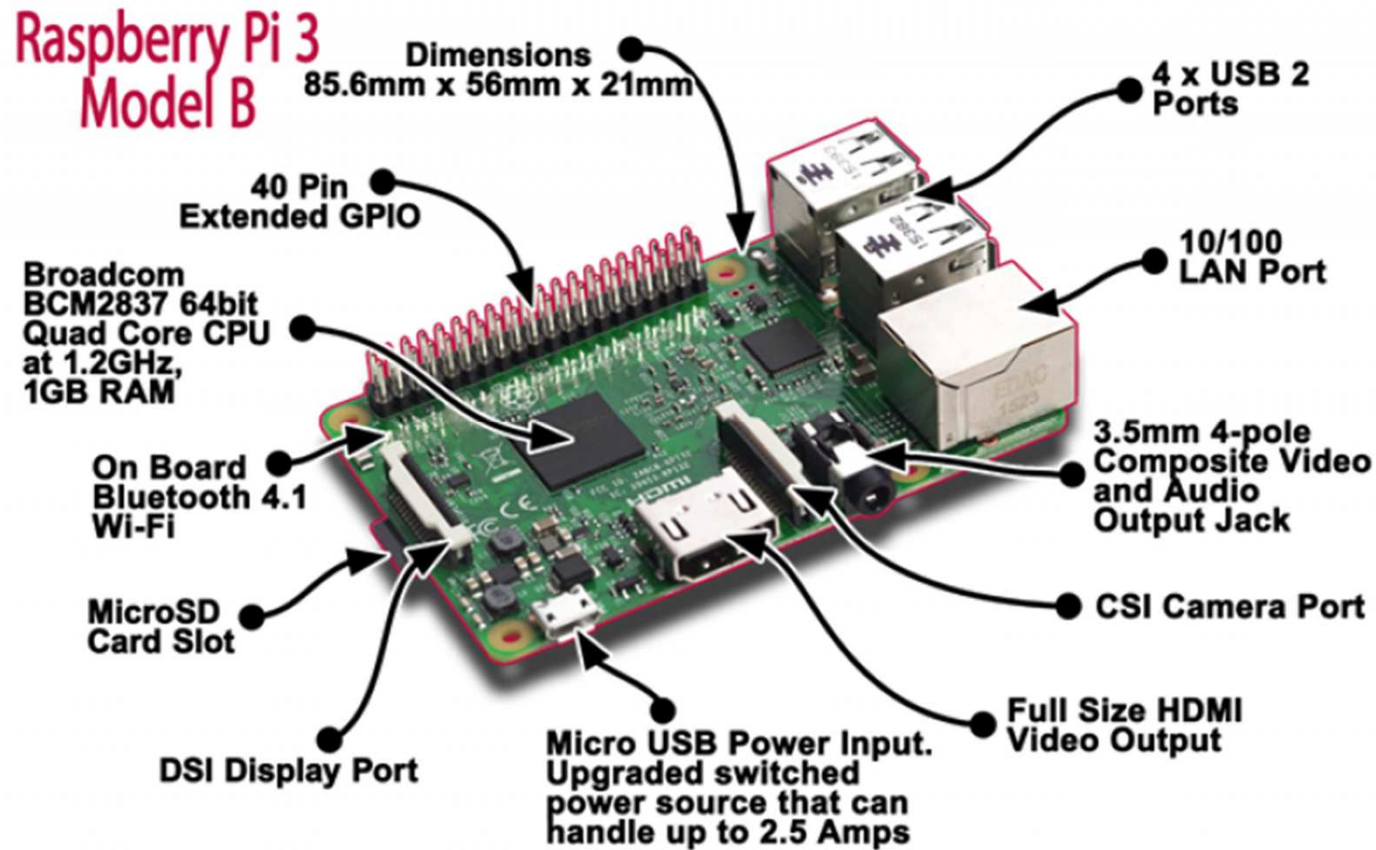
Costruiamo una Smart Home con Raspberry Pi

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Raspberry Pi



GPIO (General Purpose IO)



	Pin No.		
3.3V	1	2	5V
GPIO2	3	4	5V
GPIO3	5	6	GND
GPIO4	7	8	GPIO14
GND	9	10	GPIO15
GPIO17	11	12	GPIO18
GPIO27	13	14	GND
GPIO22	15	16	GPIO23
3.3V	17	18	GPIO24
GPIO10	19	20	GND
GPIO9	21	22	GPIO25
GPIO11	23	24	GPIO8
GND	25	26	GPIO7
DNC	27	28	DNC
GPIO5	29	30	GND
GPIO6	31	32	GPIO12
GPIO13	33	34	GND
GPIO19	35	36	GPIO16
GPIO26	37	38	GPIO20
GND	39	40	GPIO21



GPIO (General Purpose IO)

Raspberry Pi 26 Pin	3.3V			1	⊗	⊗	2	5V	
	I2C Data	GPIO 2	3	⊗	⊗	4	5V		
	I2C Clock	GPIO 3	5	⊗	⊗	6	Gnd		
	1-WIRE	GPIO 4	7	⊗	⊗	8	GPIO 14	UART0 TXD	
	Gnd			9	⊗	⊗	10	GPIO 15	UART0 RXD
		GPIO 17	11	⊗	⊗	12	GPIO 18	PWM0	PCM CLK
	SD0 DAT3	GPIO 27	13	⊗	⊗	14	Gnd		
	SD0 CLK	GPIO 22	15	⊗	⊗	16	GPIO 23	SD0 CMD	
	3.3V			17	⊗	⊗	18	GPIO 24	SD0 DAT0
	SPI0 MOSI	GPIO 10	19	⊗	⊗	20	Gnd		
SPI0 MISO	GPIO 9	21	⊗	⊗	22	GPIO 25	SD0 DAT1		
SPI0 SCLK	GPIO 11	23	⊗	⊗	24	GPIO 8	SPI0 CE0		
Gnd			25	⊗	⊗	26	GPIO 7	SPI0 CE1	
EEPROM			27	⊗	⊗	28	EEPROM		
	GPIO 5	29	⊗	⊗	30	Gnd			
	GPIO 6	31	⊗	⊗	32	GPIO 12	PWM0		
PWM1	GPIO 13	33	⊗	⊗	34	Gnd			
PCM FS	GPIO 19	35	⊗	⊗	36	GPIO 16			
SD0 DAT2	GPIO 26	37	⊗	⊗	38	GPIO 20	PCM DIN		
Gnd			39	⊗	⊗	40	GPIO 21	PCM DOUT	
Raspberry Pi B+ 40 Pin									

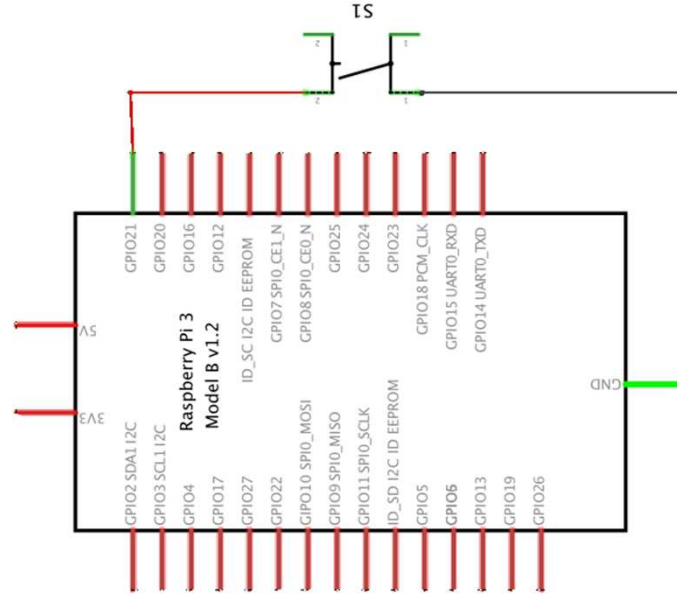
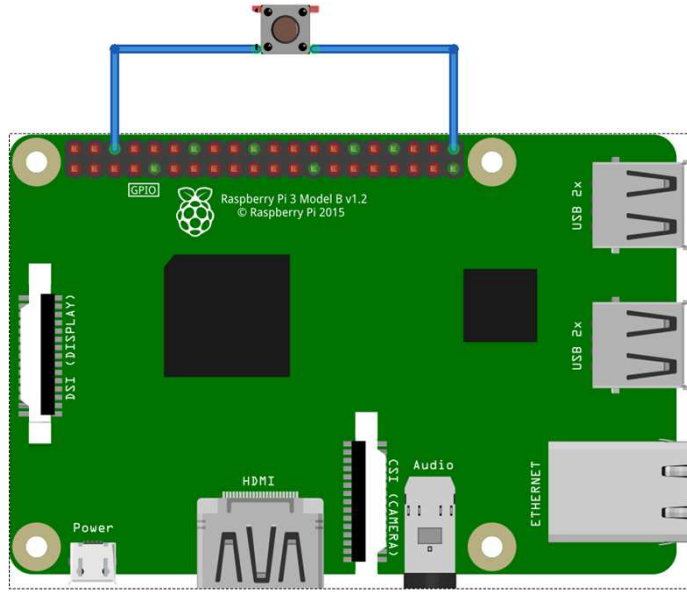


GPIO (General Purpose IO)

- Alcuni pin GPIO hanno funzioni secondarie che permettono loro di interfacciarsi con diversi tipi di dispositivi che usano i protocolli:
 - I2C
 - SPI
 - UART
 - I2S



Il pulsante



Il pulsante + led

