

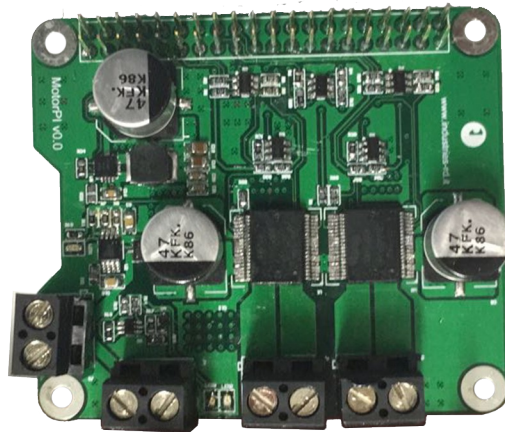
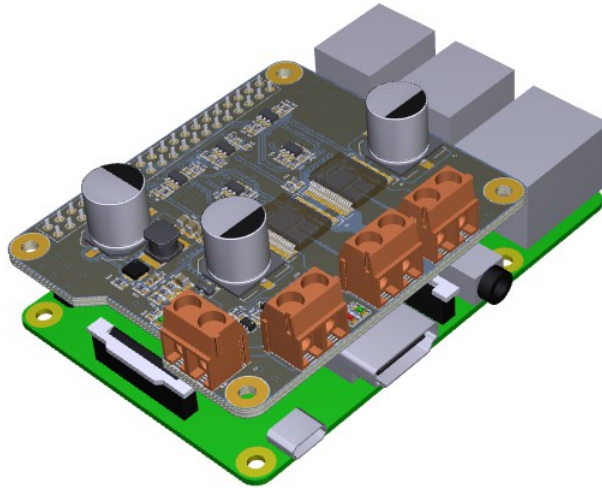


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**Hat MotorPi - R1**

**Motor shield Raspberry Pi**

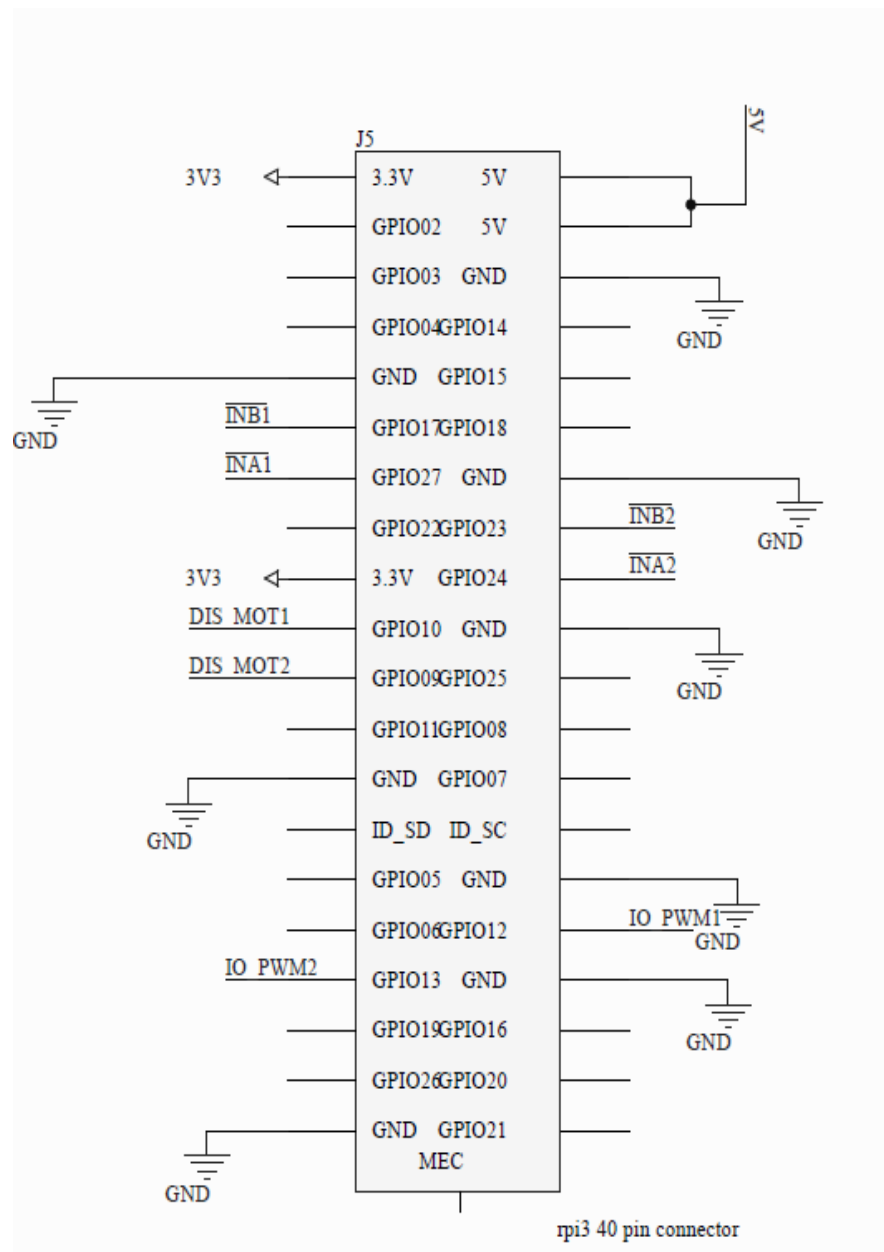




Shield di controllo motori per Raspberry Pi 3 e Raspberry Pi 2.  
Ideale per costruire i propri robot di telepresenza e videosorveglianza.  
La scheda permette di alimentare 2 motori DC con 8A per canale.  
E' presente un circuito di ricarica della batteria.  
La Batteria deve essere di tipo lipo da 7,4V

INPUT VOLTAGE : 8V ~ 41V

OUTPUT CURRENT: 8A per channel





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	<b>GPIO</b>	
<b>B1</b>	17	
<b>A1</b>	27	
<b>PWM1</b>	12	
<b>B2</b>	23	
<b>A2</b>	24	
<b>PWM2</b>	13	
<b>DSMoT1</b>	9	<b>H</b>
<b>DSMoT2</b>	10	<b>H</b>

**Motor 1**

<b>A1</b>	<b>B1</b>	<b>PWM1</b>	<b>DSMoT1</b>	<b>Motor 1</b>
-	-	-	<b>H</b>	<b>Disabled</b>
-	-	<b>L</b>	<b>L</b>	<b>Disabled</b>
<b>H</b>	<b>L</b>	<b>H</b>	<b>L</b>	<b>Enabled Dir 1</b>
<b>L</b>	<b>H</b>	<b>H</b>	<b>L</b>	<b>Enabled Dir 2</b>
<b>L</b>	<b>L</b>	<b>H</b>	<b>L</b>	<b>Motor brake</b>

**Motor 2**

<b>A2</b>	<b>B2</b>	<b>PWM2</b>	<b>DSMoT2</b>	<b>Motor 2</b>
-	-	-	<b>H</b>	<b>Disabled</b>
-	-	<b>L</b>	<b>L</b>	<b>Disabled</b>
<b>H</b>	<b>L</b>	<b>H</b>	<b>L</b>	<b>Enabled Dir 1</b>
<b>L</b>	<b>H</b>	<b>H</b>	<b>L</b>	<b>Enabled Dir 2</b>
<b>L</b>	<b>L</b>	<b>H</b>	<b>L</b>	<b>Motor brake</b>



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**Di seguito sempio di sketch in Phyton**

```
import RPi.GPIO as GPIO

io_pwm1 =12
ina1 = 17
inb1 = 27

io_pwm2 =13
ina2 = 23
inb2 = 24

def motor1Forward():
    GPIO.output(io_pwm1,1)
    GPIO.output(ina1,1)
    GPIO.output(inb1,0)
    print("motor 1 Forward\r\n")

def motor1Backward():
    GPIO.output(io_pwm1,1)
    GPIO.output(ina1,0)
    GPIO.output(inb1,1)
    print("motor 1 Backward\r\n")

def motor1Stop():
    GPIO.output(io_pwm1,0)
    GPIO.output(ina1,1)
    GPIO.output(inb1,1)
    print("motor 1 Stop\r\n")

def motor2Forward():
    GPIO.output(io_pwm2,1)
    GPIO.output(ina2,1)
```



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**Hat MotorPi - R1**

**Motor shield Raspberry Pi**

```
GPIO.output(inb2,0)
print("motor 2 Forward\r\n")

def motor2Backward():
    GPIO.output(io_pwm2,1)
    GPIO.output(ina2,0)
    GPIO.output(inb2,1)
    print("motor 2 Backward\r\n")

def motor2Stop():
    GPIO.output(io_pwm2,0)
    GPIO.output(ina2,1)
    GPIO.output(inb2,1)
    print("motor 2 Stop\r\n")

def motorInit():
    GPIO.setmode(GPIO.BCM)
    chan_list_1=[io_pwm1,ina1,inb1] #lista dei pin del motore 1
    chan_list_2=[io_pwm2,ina2,inb2] #lista dei pin del motore 2
    GPIO.setup(chan_list_1,GPIO.OUT) #pin motore 1 output
    GPIO.setup(chan_list_2,GPIO.OUT) #pin motore 2 output
    print("motors init complete\r\n")

def printMenu():
    print("available options:\r\n"+
        "\t1-Motor1 forward\r\n"+
        "\t2-Motor1 backward\r\n"+
        "\t3-Motor1 stop\r\n"+
        "\t4-Motor2 forward\r\n"+
        "\t5-Motor2 backward\r\n"+
        "\t6-Motor2 stop\r\n"+
        "\t0-Exit\r\n")
```



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```
motorInit()
loop_condition=True
print("motorPi example usage\r\n")
printMenu()

while loop_condition==True:
    value=raw_input("Select an option and press Enter\r\n")
    if value=="":
        continue
    if value=="0":
        loop_condition=False
    elif value=="1":
        motor1Forward()
    elif value=="2":
        motor1Backward()
    elif value=="3":
        motor1Stop()
    elif value=="4":
        motor2Forward()
    elif value=="5":
        motor2Backward()
    elif value=="6":
        motor2Stop()
    else:
        printMenu()

GPIO.cleanup()
print("Buonanotte ai suonatori!!!")
```