



AlphaBot2 - Roboter Bausatz für Raspberry Pi 3



Numero Ordine:	ABOT2-PI
Hersteller:	Waveshare
EAN:	614961950474
Herkunftsland:	China
Zolltarifnummer:	84733020
Gewicht:	0.47 kg

Übersicht

This AlphaBot2 robot kit is designed to use with Raspberry Pi 3 Model B (not included). It features rich common robot functions including line tracking, obstacle avoiding, Bluetooth/infrared/WiFi remote control, video monitoring, etc.

Thanks to the highly integrated modular design, it is fairly easy to assemble by a snap, no soldering, no wiring. After a few minutes spent on hardware assembling, you're almost there, our open source demo codes is ready to help you get started fast.

AlphaBot2 Features

AlphaBot2 employs a 2-layer structure to provide excellent stability and compatibility.

AlphaBot2-Base, the lower base chassis:

- 5-ch infrared sensor, analog output, combined with PID algorithm, stable line tracking
- Onboard modules like line tracking, obstacle avoiding, needs no messy wiring
- TB6612FNG dual H-bridge motor driver, compared with L298P, it's more efficient, more compact, and less heating
- N20 micro gear motor, with metal gears, low noise, high accuracy
- Onboard RGB LEDs, true color lighting, pretty cool

AlphaBot2-Pi, the upper adapter board for controller:

- LM2596 voltage regulator, provides the Pi with stable 5V power
- TLC1543 AD acquisition chip, allows the Pi to use analog sensors
- PCA9685 servo controller, make it more smoothly to rotate the pan head
- CP2102 UART converter, easy for controlling the Pi via UART

Lieferumfang

- AlphaBot2-Pi (adapter board) x1



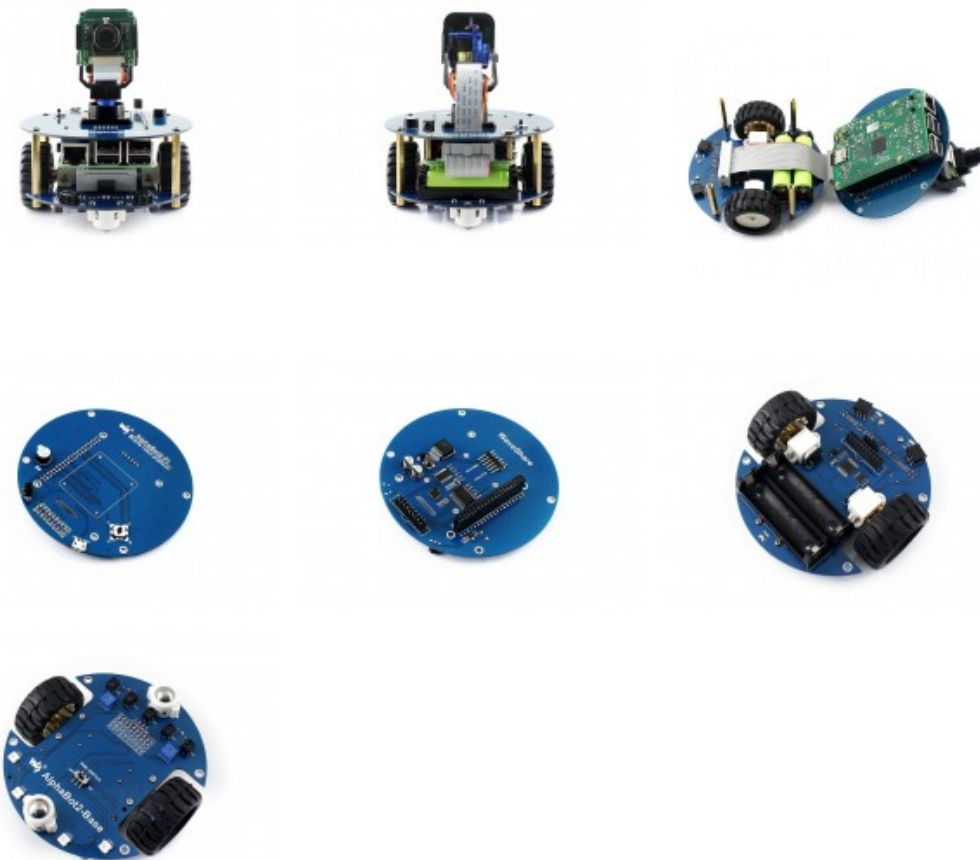
- AlphaBot2-Base (base chassis) x1
- RPi Camera (B) x1
- Micro SD Card 16GB x1
- Power adapter US standard 5V/2.5A USB output x1
- SG90 servo x2
- 2 DOF pan and tilt kit x1
- IR remote controller x1
- FC-20P cable 8cm x1
- USB type A plug to micro B plug cable x1
- 15PIN FFC 25cm x1
- AlphaBot2-Pi screws x1
- Micro SD Card Reader x1
- Screwdriver x1

Note: This product requires two 14500 batteries and a Raspberry Pi 3 to work, which are NOT included and should be purchased separately.

Dokumentation / Downloads

- <http://www.waveshare.com/wiki/AlphaBot2>
- <http://www.waveshare.com/wiki/AlphaBot2-Pi>

Weitere Bilder:





9. **SignalNet** control interface for connecting with a variable adapter board
10. **On-board module interface**
11. **On-board status indicators**
12. **Good vibration isolation**
13. **SPW05** reflective signal photodiode sensor for obstacle avoidance
14. **SPW005P05** reflective infrared photodiode sensor for line finding
15. **Proximity sensor** for adjusting obstacle avoidance range
16. **TR005SPW05** dual tri-logic motor driver
17. **LM004** voltage comparator
18. **820** micro-gain motor-reduction ratio 1:32, 6V/1000RPM
19. **Roboter** ultrasonic distance sensor, wide view
20. **Power supply**
21. **Building block supports** 1/200/1mmholes
22. **90000RPM** 1/2oz 4000 MBL (200)
23. **Power indicator**



1. **AlphabotZ** control interface for connecting Alphabot-Z base
2. **RaspibotZ** Pi interface for connecting Raspberry Pi Model B
3. **Sense** interface
4. **USB to UART** easy for connecting the Phyrev UART
5. **LM2596** for voltage regulator
6. **TL1444** - 5V to 3.3V signal booster, allows the Pi to use analog sensors
7. **PCA9685** - servo controller, make it more convenient to cross the pan/tilt
8. **CP2402** USB to UART converter
9. JoyStick
10. IR receiver
11. Buzzer

