


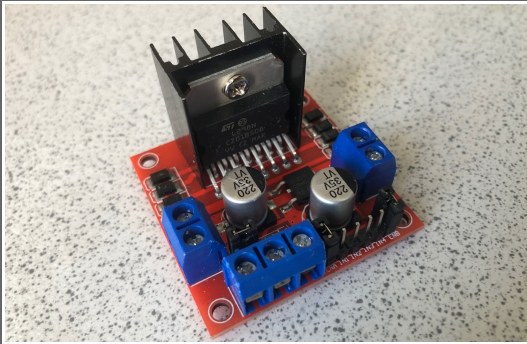





Parts and tools list for a robot buggy

To build a Raspberry Pi robot buggy, you will need the components and tools listed below. The model and type of components are recommendations that have been tested with a Raspberry Pi, although alternatives are also available.

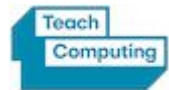
You can view most of the required components on this [AliExpress Wish List](#), but they can be ordered and bought from many other suppliers.









Robot buggy components

Part	Model / type	Picture
Raspberry Pi	3B, 3B+, or 4	
Motor controller board	L298 Dual H-Bridge	
Two DC motors	3V - 6V	
Two wheels	Which fit your motors	
Ball caster	Ideally, one for use with robots rather than furniture.	



Parts and tools list for a robot buggy



Ultrasonic distance sensor (UDS)	HC-SR04P (3V3 Tolerant) or HC-SR04 (5V)	
Two resistors	If using a 5V UDS, you will need to split the voltage to output 3.3V	
Two line-following sensors	TCRT5000	
Jumper leads or wire	female-to-female and male-to-female	
AA battery holder	For four AA batteries	
Four AA batteries		
USB powerbank	Suitable for powering the Raspberry Pi	
A small box for the chassis	Can be cardboard, plastic, wood, metal, etc.	

Tools and other parts

- ☐ Black tape and white paper or card (to make a track for the line-following robot)
- ☐ Soldering iron and solder
- ☐ Wire strippers
- ☐ Scissors
- ☐ Screwdriver
- ☐ Electrical tape
- ☐ Cable ties or Velcro-type straps