## Bill of Materials: robotling\_version1\_1.fzz

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## **Assembly List**

| Label       | Part Type                                  | Properties  |
|-------------|--|---|
| Analog_In   | Generic female header - 8 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 8; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| Analog_In_b | Generic female header - 8 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 8; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| Analog_In_c | Generic female header - 8 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 8; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| Bauteil1    | Lithium Ion Polymer<br>Battery 3.7v 350mAh | Variante 350mAh; Bauteilnummer 2750   |
| C1          | Tantalum Capacitor                         | Kapazität 1μF; Spannung 6.3V; Paket 100 mil [THT, tantalum]   |
| C2          | Tantalum Capacitor                         | Kapazität 1μF; Spannung 6.3V; Paket 100 mil [THT, tantalum]   |
| DIO         | Generic female header - 4 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| DIO_b       | Generic female header - 4 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| DIO_c       | Generic female header -<br>4 pins          | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| DRV8835     | DRV8835                                    | Variante variant 1; Beinchen 14; editable pin labels false; chip label DRV8835; Beinchenabstand 300mil; Paket DIP (Dual Inline) [THT] |
| Feather     | Adafruit HUZZAH32<br>ESP32 Feather         | Variante variant 1; Bauteilnummer Adafruit #3405  |
| I2C         | Generic female header - 6 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 6; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| J1          | Generic female header - 2 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 2; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                           |
| J2          | Generic male header - 2 pins               | Lochgröße 1.0mm,0.508mm; Beinchen 2; row single; Form ♂ (male); Beinchenabstand 0.1in (2.54mm); Paket THT                             |
| J2_b        | Generic male header - 2 pins               | Lochgröße 1.0mm,0.508mm; Beinchen 2; row single; Form ♂ (male); Beinchenabstand 0.1in (2.54mm); Paket THT                             |

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| Label        | Part Type                              | Properties   |
|--------------|--|--|
| Ј3           | Generic rounded female header - 4 pins | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female rounded); Beinchenabstand 0.1in (2.54mm); Paket THT                        |
| J4           | Generic female header - 2 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 2; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                                |
| LED          | Generic female header - 3 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 3; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                                |
| LED1         | Green (565nm) LED                      | leg yes; Farbe Green (565nm); Paket 3 mm [THT]   |
| LSM303       | Flora LSM303<br>Compass+Accel          | Variante variant 1   |
| MCP3208      | MCP3208                                | Beinchen 16; Lochgröße 1.0mm,0.508mm; true; Chip-Beschriftung MCP3208; Beinchenabstand 300mil; Paket DIP (Dual Inline) [THT]               |
| Motors       | Generic female header - 4 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT; Bauteilnummer Motor connector |
| R1           | 8.2kΩ Resistor                         | Widerstand $8.2k\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT   |
| R2           | 8.2kΩ Resistor                         | Widerstand 8.2k $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT  |
| R3           | 680Ω Resistor                          | Widerstand 680 $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT   |
| R4           | 680Ω Resistor                          | Widerstand 680 $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT   |
| R5           | 1kΩ Resistor                           | Widerstand 1k $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT  |
| S1           | SPST Switch                            | Variante pth; Paket switch-spdt  |
| SN72AHCT125N | SN72AHCT                               | Beinchen 14; Lochgröße 0.7mm,0.508mm; true; Chip-Beschriftung SN72AHCT; Beinchenabstand 300mil; Paket DIP (Dual Inline) [THT]              |
|              |  |  |

## **Shopping List**

| Amount | Part Type                                  | Properties  |
|--------|--|---|
| 3      | Generic female header - 8 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 8; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT |
| 1      | Lithium Ion Polymer<br>Battery 3.7v 350mAh | Variante 350mAh; Bauteilnummer 2750   |
| 2      | Tantalum Capacitor                         | Kapazität 1μF; Spannung 6.3V; Paket 100 mil [THT, tantalum]   |
| 3      | Generic female header - 4 pins             | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT |

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| Amount | Part Type                              | Properties   |
|--------|--|--|
| 1      | DRV8835                                | Variante variant 1; Beinchen 14; editable pin labels false; chip label DRV8835; Beinchenabstand 300mil; Paket DIP (Dual Inline) [THT]      |
| 1      | Adafruit HUZZAH32<br>ESP32 Feather     | Variante variant 1; Bauteilnummer Adafruit #3405   |
| 1      | Generic female header - 6 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 6; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                                |
| 2      | Generic female header - 2 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 2; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                                |
| 2      | Generic male header - 2 pins           | Lochgröße 1.0mm,0.508mm; Beinchen 2; row single; Form ♂ (male); Beinchenabstand 0.1in (2.54mm); Paket THT                                  |
| 1      | Generic rounded female header - 4 pins | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female rounded); Beinchenabstand 0.1in (2.54mm); Paket THT                        |
| 1      | Generic female header - 3 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 3; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT                                |
| 1      | Green (565nm) LED                      | leg yes; Farbe Green (565nm); Paket 3 mm [THT]   |
| 1      | Flora LSM303<br>Compass+Accel          | Variante variant 1   |
| 1      | MCP3208                                | Beinchen 16; Lochgröße 1.0mm,0.508mm; true; Chip-Beschriftung MCP3208; Beinchenabstand 300mil; Paket DIP (Dual Inline) [THT]               |
| 1      | Generic female header - 4 pins         | Lochgröße 1.0mm,0.508mm; Beinchen 4; row single; Form ♀ (female); Beinchenabstand 0.1in (2.54mm); Paket THT; Bauteilnummer Motor connector |
| 2      | 8.2kΩ Resistor                         | Widerstand 8.2k $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT  |
| 2      | 680Ω Resistor                          | Widerstand 680 $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT   |
| 1      | 1kΩ Resistor                           | Widerstand 1k $\Omega$ ; bands 4; Beinchenabstand 400 mil; Toleranz $\pm 5\%$ ; Paket THT  |
| 1      | SPST Switch                            | Variante pth; Paket switch-spdt  |
| 1      | SN72AHCT                               | Beinchen 14; Lochgröße 0.7mm,0.508mm; true; Chip-Beschriftung SN72AHCT; Beinchenabstand 300mil; Paket DIP (Dual Inline) [THT]              |

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