

## Materialbeschaffung

Welche Materialquellen gibt es? Wer hat Beziehungen zu vergünstigtem Einkauf? Gibt es im Großraum KA Hersteller/Vertriebsfirmen, die uns u.U. mit Sachspenden unterstützen?

### ToDos:

BoM soweit notwendig übersetzen (<http://labs.nortd.com/lasersaur/bom-1403-suppliers-eur>) und mit erklärendem Text bzw. Links auf Datenblätter/Produktbeschreibung versehen. Dann muss sich nicht jeder durch die gesamte Doku kämpfen.

### Beispiel:

Originalposition aus der BOM

Limit Sensor Pack 82,00€

Überarbeitete Position:

4 Stück magnetische Endschalter inklusive Kabel und RJ45 Stecker zu Driveboard

Magnet Mouser Teilenummer: 876-2500000004

Magnetsensor Mouser Teilenummer: MK04-1B90C-500W

### Überarbeitete BOM

Elektronik-Teile siehe [Bill of Materials](#)

| Anzahl | Originalposition       | Überarbeitete Position | Materialquelle |
|--------|------------------------|------------------------|----------------|
| 1      | Cable Ties             | Kabelbinder            | Samuel         |
| 1      | Door Sensor Pack       |                        |                |
| 1      | DriveBoard DIY Pack    |                        |                |
| 1      | DriveBoard Wiring Pack |                        |                |
| 1      | E-Valve Assembly       |                        |                |
| 1      | E-Stop Assembly        |                        |                |
| 1      | GT Timing Belt Pack    |                        |                |
| 1      | LasersaurBBB           | Beagle Bone Black      |                |
| 1      | Limit Sensor Pack      |                        |                |
| 1      | MechParts              |                        |                |
| 1      | Mirror Mount Pack      |                        |                |
| 1      | Panel Pack             |                        |                |
| 1      | Nozzle Assembly        |                        |                |
| 1      | Optics Accessory Pack  |                        |                |
| 1      | Optics Pack            |                        |                |
| 1      | Power Supply Pack      |                        |                |
| 1      | Rubber Tape            |                        |                |
| 1      | Stepper Driver Pack    |                        |                |
| 1      | Stepper X-Drive        | Schrittmotor X         |                |
| 1      | Stepper Y-Drive        | Schrittmotor Y         |                |

| Anzahl | Originalposition                  | Überarbeitete Position         | Materialquelle |
|--------|-----------------------------------|--------------------------------|----------------|
| 1      | aluminum bracket ext              |                                |                |
| 50     | angle bracket, singl              |                                |                |
| 20     | angle bracket, singl              |                                |                |
| 38     | angle bracket, doubl              |                                |                |
| 8      | angle bracket, doubl              |                                |                |
| 7      | angle bracket, doubl              |                                |                |
| 6      | ball bearing 5x19x6m              | Kugellager 5x19x6mm            |                |
| 9      | ball bearing 6x19x6m              | Kugellager 6x19x6mm            |                |
| 28     | ball bearing 5x14x5m              | Kugellager 5x14x5mm            |                |
| 2      | cable carrier, 20 li              |                                |                |
| 1      | cable carrier, 23 li              |                                |                |
| 2      | gas spring                        | Gasfeder (wie beim Kofferraum) |                |
| 3      | hinges                            |                                |                |
| 1      | alu-composite sheet               | Aluverbundblech 1166x356x3mm   |                |
| 2      | aluminium sheet                   | Alublech 1166x847x2mm          |                |
| 1      | alu-composite sheet               | Aluverbundblech 247x216x3mm    |                |
| 2      | alu-composite sheet               | Aluverbundblech 847x213x3mm    |                |
| 2      | alu-composite sheet               | Aluverbundblech 847x268x3mm    |                |
| 2      | alu-composite sheet               | Aluverbundblech 847x356x3mm    |                |
| 1      | alu-composite sheet               | Aluverbundblech 917x356x3mm    |                |
| 34     | nut DIN934-like, M3               | Mutter M3                      |                |
| 10     | nut DIN985-like, lock, M4         | Mutter M4 selbstsichernd       |                |
| 52     | nut DIN985-like, lock, M5         | Mutter M5 selbstsichernd       |                |
| 1      | panel rubber seal 12              |                                |                |
| 10     | planar bracket, doub              |                                |                |
| 2      | plastic handles                   |                                |                |
| 2      | polycarbonate sheet               | Kunststoffplatte 600x130x3mm   |                |
| 2      | polycarbonate sheet               | Kunststoffplatte 600x110x3mm   |                |
| 2      | polycarbonate sheet               | Kunststoffplatte 807x60x3mm    |                |
| 2      | polycarbonate sheet               | Kunststoffplatte 847x143x3mm   |                |
| 2      | polycarbonate sheet               | Kunststoffplatte 892x847x3mm   |                |
| 1      | drive shaft, stepped              |                                |                |
| 1      | drive shaft, stepped              |                                |                |
| 2      | drive shaft, stepped              |                                |                |
| 2      | drive shaft, stepped              |                                |                |
| 42     | screw DIN912-like, M3x10          | Schraube M3x10                 |                |
| 16     | screw DIN912-like, M3x16          | Schraube m3x16                 |                |
| 5      | screw DIN912-like, M3x25          | Schraube M3x25                 |                |
| 18     | screw ISO7380-like, button, M3x06 | Knopfkopf Schraube M3x6        |                |
| 12     | screw DIN912-like, M4x16          | Schraube M4x16                 |                |
| 146    | screw DIN912-like, M5x08          | Schraube M5x8                  |                |
| 368    | screw DIN912-like, M5x10          | Schraube M5x10                 |                |
| 30     | screw DIN912-like, M5x12          | Schraube M5x12                 |                |
| 28     | screw DIN912-like, M5x16          | Schraube M5x16                 |                |
| 38     | screw DIN912-like, M5x20          | Schraube M5x20                 |                |

|     |                                    |                                 |  |
|-----|------------------------------------|---------------------------------|--|
| 11  | screw DIN912-like, adhesive, M5x25 | Schraube M5x25 (Selbstsichernd) |  |
| 162 | screw ISO7380-like, button, M5x06  | Knopfkopf Schraube M5x6         |  |
| 12  | screw DIN7991-like, sunk, M5x08    | Senkkopf Schraube M5x8          |  |
| 5   | screw DIN7991-like, sunk, M5x12    | Senkkopfschraube M5x12          |  |
| 6   | screw DIN7984-like, low, M5x16     | Flachkopf Schraube M5x16        |  |
| 25  | screw DIN7984-like, low, M5x30     | Flachkopf Schraube M5x30        |  |
| 4   | shaft coupling, 6 to               |                                 |  |
| 3   | slide washer                       |                                 |  |
| 1   | timing belt GT 3M, 9               |                                 |  |
| 1   | timing belt GT 3M, 9               |                                 |  |
| 1   | timing pulley GT 3M,               |                                 |  |
| 1   | timing pulley GT 3M,               |                                 |  |
| 1   | timing pulley GT 3M,               |                                 |  |
| 1   | timing pulley GT 3M,               |                                 |  |
| 3   | timing pulley GT 3M,               |                                 |  |
| 1   | extrusion 2020, 1564               | Alu Profil                      |  |
| 1   | extrusion 2020, 57mm               | Alu Profil                      |  |
| 2   | extrusion 2020, 80mm               | Alu Profil                      |  |
| 3   | extrusion 2040, 100m               | Alu Profil                      |  |
| 2   | extrusion 2040, 1130               | Alu Profil                      |  |
| 2   | extrusion 2040, 120m               | Alu Profil                      |  |
| 1   | extrusion 2040, 142m               | Alu Profil                      |  |
| 4   | extrusion 2040, 1260               | Alu Profil                      |  |
| 1   | extrusion 2040, 148m               | Alu Profil                      |  |
| 1   | extrusion 2040, 1564               | Alu Profil                      |  |
| 4   | extrusion 2040, 1620               | Alu Profil                      |  |
| 4   | extrusion 2040, 190m               | Alu Profil                      |  |
| 1   | extrusion 2040, 320m               | Alu Profil                      |  |
| 1   | extrusion 2040, 63mm               | Alu Profil                      |  |
| 2   | extrusion 2040, 750m               | Alu Profil                      |  |
| 1   | extrusion 2040, 55mm               | Alu Profil                      |  |
| 1   | extrusion 2040, 80mm               | Alu Profil                      |  |
| 1   | extrusion 2040, 69mm               | Alu Profil                      |  |
| 3   | extrusion 2040, 830m               | Alu Profil                      |  |
| 2   | extrusion 2040, 858m               | Alu Profil                      |  |
| 3   | extrusion 2040, 860m               | Alu Profil                      |  |
| 1   | extrusion 2040, 860m               | Alu Profil                      |  |
| 1   | extrusion 2040, 96mm               | Alu Profil                      |  |
| 2   | extrusion 2080, 70mm               | Alu Profil                      |  |
| 2   | extrusion 4040, 100m               | Alu Profil                      |  |
| 2   | extrusion 4040, 1130               | Alu Profil                      |  |
| 8   | extrusion 4040, 120m               | Alu Profil                      |  |
| 2   | extrusion 4040, 120m               | Alu Profil                      |  |
| 1   | extrusion 4040, 1418               | Alu Profil                      |  |
| 1   | extrusion 4040, 1564               | Alu Profil                      |  |
| 1   | extrusion 4040, 1620               | Alu Profil                      |  |

|     |                      |                           |  |
|-----|----------------------|---------------------------|--|
| 1   | extrusion 4040, 190m | Alu Profil                |  |
| 2   | extrusion 4040, 360m | Alu Profil                |  |
| 3   | extrusion 4040, 860m | Alu Profil                |  |
| 2   | extrusion 4080, 100m | Alu Profil                |  |
| 2   | extrusion 4080, 1620 | Alu Profil                |  |
| 2   | extrusion 4080, 940m | Alu Profil                |  |
| 1   | air tube, ODxID 6x4m |                           |  |
| 3   | one-touch coupling,  |                           |  |
| 1   | one-touch panel-moun |                           |  |
| 15  | nut T-slot, pre, M3  |                           |  |
| 13  | nut T-slot, pre, M4  |                           |  |
| 26  | nut T-slot, pre, M5  |                           |  |
| 604 | nut T-slot, post, M5 |                           |  |
| 1   | water hose ID 9mm, 1 |                           |  |
| 10  | washer DIN125-like,  | Unterlegscheibe M4 Form A |  |
| 248 | washer DIN125-like,  | Unterlegscheibe M5 Form A |  |
| 20  | washer DIN9021-like, | Unterlegscheibe M4 Form G |  |
| 28  | washer DIN9021-like, | Unterlegscheibe M5 Form G |  |
| 4   | washer precision, ID |                           |  |
| 1   | washer precision, OD |                           |  |
| 89  | washer Schnorr-like, |                           |  |
| 24  | washer Schnorr-like, |                           |  |

### Beispiellinks zu günstigen Shops mit den Produkten:

[ball bearing 5x14x5mm](#) Bei diesem wäre zuvor zu überprüfen, ob auch ein Flanschlager nutzbar ist, da es in dieser gröÙe nur Flanschlager gibt.

[ball bearing 5x19x6mm](#)

[ball bearing 6x19x6mm](#)