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| --- | --- | --- | --- | --- | --- |
| **MAKE OR BUY** | | **PART NAME IN CAD** | **DESCRIPTION (Manufacturing Technology)** | **SUPPLIER LINK** | **QTY** |
| **Make** | | Backplate | Backplate for big frame (CNC) |  | 1 |
| Big Side No Sensor | Side panel with sensor for big frame (CNC) | 1 |
| Big Side with Sensor | Side panel without sensor for big frame (CNC) | 1 |
| Big Top and Bottom | Top and bottom for big frame (CNC) | 2 |
| Small Sides | Side panels for small frames (CNC) | 12 |
| Small Tops and Bottoms | Top and bottom panels for small frames (CNC) | 12 |
| Panel1Wood | North America panel (laser cut) |  | 1 |
| Panel2Wood | Europe panel (laser cut) | 1 |
| Panel3Wood | Asia panel (laser cut) | 1 |
| Panel4Wood | South America panel (laser cut) | 1 |
| Panel5Wood | Africa panel (laser cut) | 1 |
| Panel6Wood | Australia panel (laser cut) | 1 |
| Power Supply Mounting Board | Board to mount Satshakit and power supply (laser cut) | 1 |
| Panel1Acrylic | North America panel (laser engraved) |  | 1 |
| Panel2Acrylic | Europe panel (laser engraved) | 1 |
| Panel3Acrylic | Asia panel (laser engraved) | 1 |
| Panel4Acrylic | South America panel (laser engraved) | 1 |
| Panel5Acrylic | Africa panel (laser engraved) | 1 |
| Panel6Acrylic | Australia panel (laser engraved) | 1 |
| Wire Management for MOSFETs | Wire management for the branches (3D print) |  | 7 |
| Wire Management for Satshakit | Wire management for the main board (3D print) | 1 |
| Wire Management for Straights | Wire management for the straight areas (3D print) | 12 |
| Wire Management for Corners | Wire management for the corners (3D print) | 3 |
| Satshakit | Main circuit board |  | 1 |
| MOSFET Breakout Main | Breakout board for main sensor and MOSFET |  | 1 |
| MOSFET Breakout Branches | Breakout board for sensors and MOSFETs for branches |  | 6 |
|  |  | | | | |
| **Buy** | | Supplies |  |  |  |
| 125 x 250cm x 20mm plywood | Birch multiplex plywood for all CNC parts | Lab | 1 |
| 125 x 250cm x 5mm plywood | Soft multiplex plywood for all laser cut parts | Lab | 1 |
| 40 x 40cm x 4mm acrylic sheets | Acrylic for laser engraved parts | [Link](https://acrylglasplattenshop.de/product/transparent-klar-4-mm-acrylglas-gs-platte/) | 6 |
| Polyurethane stain | Polyurethane weather sealant for wood (300ml) | [Link](https://www.hornbach.de/shop/HORNBACH-Bootslack-seidenglaenzend-750-ml/6199349/artikel.html?wt_cc2=41357934198&wt_cc3=182970996401&gclid=CjwKCAjwwdWVBhA4EiwAjcYJEJYBSsb2kBwh2jWijI4pWbmy2GBuK5TmbJwGtdBGNTkJnQEzE4xQrRoC4h4QAvD_BwE&wt_cc6=6199349&wt_mc=de.paid.sea.google.alwayson_assortment.far.pla.764331991.41357934198.&wt_cc1=764331991) | 1 |
| Black latex paint | Black latex paint for small frames (300ml) | [Link](https://www.amazon.de/-/en/myPAINT%C2%AE%EF%B8%8F-Coloured-Varnish-Childrens-Interior/dp/B094992SWZ/ref=sr_1_7?adgrpid=71189423215&gclid=CjwKCAjwwdWVBhA4EiwAjcYJEOghEp4KZl04HvrV1Jyuj9uyWzGukfKj6BET3WCnParZGOkOwbr3hBoCImgQAvD_BwE&hvadid=352844164042&hvdev=c&hvlocphy=9044849&hvnetw=g&hvqmt=b&hvrand=16964814622609977763&hvtargid=kwd-299452658345&hydadcr=19623_1721414&keywords=holzfarbe%2Bschwarz&qid=1656086815&sr=8-7&th=1) | 1 |
| JD79 3x20 mm galvanized screw | yellow chromated chipboard screw (200 pieces) | [Link](https://www.hornbach.de/shop/JD79-Spanplattenschraube-3x20-mm-galv-verzinkt-gelb-chromatiert-200-Stueck/3834785/artikel.html?wt_cc2=102189377754&wt_cc3=425722128162&gclid=CjwKCAjwwdWVBhA4EiwAjcYJEF_OhoZ-6zwAxVrCyfTIeLN3uimuhP8mz7NWn-m9n6tfuE2whJB1hBoC0D0QAvD_BwE&wt_cc6=3834785&wt_mc=de.paid.sea.google.alwayson_assortment.eis.pla.766104886.102189377754.&wt_cc1=766104886) | 1 |
| Satshakit Components |  |  |  |
| ATmega 328P-A |  | Lab | 1 |
| 22pF capacitor |  | Lab | 2 |
| 10μF capacitor |  | Lab | 1 |
| 1μF capacitor |  | Lab | 1 |
| 100nF capacitor |  | Lab | 2 |
| Green LED |  | Lab | 6 |
| Red LED |  | Lab | 1 |
| Yellow LED |  | Lab | 1 |
| 10kΩ Resistor |  | Lab | 1 |
| 499Ω Resistor |  | Lab | 8 |
| B3SN Button |  | Lab | 2 |
| 16MHz/18pF crystal |  | Lab | 1 |
| 1x9 Pin header |  | Lab | 1 |
| 1x14 Pin header |  | Lab | 1 |
| 1x2 Pin header |  | Lab | 1 |
| 1x1 Pin header |  | Lab | 1 |
| Main MOSFET breakout components |  |  |  |
| RFD16N05LSM-D 50V 16A MOSFET |  | Lab | 1 |
| NCP1117-D 5V voltage regulator |  | Lab | 1 |
| 100kΩ Resistor |  | Lab | 1 |
| 1x3 Pin header |  | Lab | 2 |
| Branch MOSFET breakout components |  |  |  |
| RFD16N05LSM-D 50V 16A MOSFET |  | Lab | 6 |
| 100kΩ Resistor |  | Lab | 6 |
| 1x3 Pin header |  | Lab | 6 |
| LED Strips | 24V DC 30 LED/m 7.2W/m 5050 LED strips (5m) | [Link](https://meine-leds.com/5-Meter-LED-Band-24V-5050-RGB-72W-30-Leds-M-IP20) | 2 |
| Right angle pin header | Male to female 90° pin headers for sensors | Lab | 7 |
| HC-SR04 | HC-SR04 ultrasonic ranging module | Lab | 7 |
| Cord Grip 450-500NPT | Strain reliever for 6mm power cable | Lab | 1 |
| Power Supply | MeanWell LRS-150-24 150W 24V AC/CD power supply | [Link](https://www.conrad.de/de/p/mean-well-lrs-150-24-ac-dc-netzteilbaustein-geschlossen-6-5-a-156-w-24-v-dc-1439465.html) | 1 |
| ISO 4014 - M12 x 50 x 50-S | M12 Bolt to cut into extender for power cable strain relief | Lab | 1 |
| 1 mm² copper cable (1m) |  | [Link](https://www.conrad.de/de/p/lapp-oelflex-classic-110-steuerleitung-4-g-1-mm-grau-1119204-1-1-m-602304.html) | 10 |