# Components list for NAROM 2018 CanSat kit (links are suggestions):

|  |  |  |  |
| --- | --- | --- | --- |
| **Item and link** | **number** | **Place/Name on shield** | **Notes/alternative link** |
| [Buzzer](https://www.digikey.no/product-detail/en/pui-audio-inc/AT-1224-TWT-5V-2-R/668-1470-ND/5011404) | 1 | Buzzer |  |
| Resistor [4.7k 1206 SMD](https://www.digikey.no/product-detail/en/yageo/RC1206FR-074K7L/311-4.70KFRCT-ND/731834) | 5 | R1, R2, R3, R5, R6 |  |
| Resistor [1206 470 (for LED](https://www.digikey.no/products/en?keywords=311-470FRCT-ND)) | 1 | R4 | Not important to use the exact value here. |
| Radio module [RFM96](http://www.icstation.com/rfm96-433mhz-lora-wireless-transceiver-module-remotemodel-aircraft-p-7452.html) | 2 |  |  |
| Sensor [GY-91](https://www.banggood.com/GY-91-MPU9250-BMP280-10DOF-Acceleration-Gyroscope-Compass-Nine-Shaft-Sensor-Module-p-1129541.html?rmmds=search&cur_warehouse=CN) | 1 |  |  |
| Processor board [Teensy 3.5](https://www.digikey.no/product-detail/en/sparkfun-electronics/DEV-14055/1568-1443-ND/6235191) | 2 |  |  |
| 10 k [NTC-sensor](http://no.farnell.com/vishay/ntcle300e3103sb/thermistor-ntc-10k-0-5-radial/dp/1888081) | 1 | NTC | Digikey: https://www.digikey.no/products/en?keywords=NTCLE300E3103SB |
| Voltage regulator [IC REG 3.3V TO252-3](https://www.digikey.no/product-detail/en/rohm-semiconductor/BD33KA5FP-E2/BD33KA5FP-E2CT-ND/3663779) | 1 | V1 | [Alternative voltage regulator](https://www.digikey.no/product-detail/en/texas-instruments/UA78M33CKVURG3/296-21208-1-ND/1217113) for V\_in higher than 5,5V (fx. a 9V battery) |
| [1206 10u capacitor](https://www.digikey.no/product-detail/en/samsung-electro-mechanics/CL31B106MOHNNNE/1276-6641-1-ND/5961500) | 2 | C1, C3 |  |
| [1206 1u capacitor](https://www.digikey.no/product-detail/en/samsung-electro-mechanics/CL31B105KAHNNNE/1276-1097-1-ND/3889183) | 2 | C2, C4 |  |
| [breakaway headers 36-pin](http://no.farnell.com/fci/77311-818-36lf/connector-header-tht-2-54mm-36way/dp/1097955?ost=109-7955&iscrfnonsku=false&ddkey=http%3Ano-NO%2FElement14_Norway%2Fsearch) | 3 |  | Digikey: <https://www.digikey.no/product-detail/en/sullins-connector-solutions/PREC040SAAN-RC/S1012EC-40-ND/2774814> |
| Light diode [1206 LED](https://www.digikey.no/product-detail/en/qt-brightek-qtb/QBLP615-IB/1516-1072-1-ND/4814799) | 1 | D1 |  |
| SMA 50 Ohm connector | 2 |  | Digikey: <https://www.digikey.no/product-detail/en/cinch-connectivity-solutions-johnson/142-0701-801/J502-ND/35280> |
| [sma cable for ¼ wavelength antenna](http://no.farnell.com/johnson/415-0029-024/cable-ass-sma-sma-24-rg-316/dp/1838801) | 1 |  | Digikey: <https://www.digikey.no/product-detail/en/cinch-connectivity-solutions-johnson/415-0029-024/J3724-ND/457095>  Ebay: <https://www.ebay.com/itm/New-12-4-SMA-male-Plug-to-SMA-female-Jack-RF-Coaxial-Coax-pigtail-Cable-SY/252308155047?hash=item3abebceaa7:g:bGwAAOSwwpdW2LeR> |
| [Micro SD kort](https://www.elkjop.no/product/foto-og-video/minnekort-til-kamera/SDSDQUIN8GB/sandisk-ultra-micro-sdhc-8-gb-minnekort-m-adapter) | 1 |  |  |
| 3,7V [1000 mAh Lipo Battery](https://www.banggood.com/Bossy-Syma-X5SW-X5SC-Spare-Part-3_7V-1000Mah-25C-Va32-Upgraded-Lipo-Battery-p-984344.html?rmmds=search&cur_warehouse=CN) | 1 |  |  |
| Battery – charger connection wire | 1 |  | <https://www.ebay.com/itm/10Pairs-DIY-JST-DS-LOSI-2-0MM-2-Pin-Connector-Plug-Male-Female-With-Wire-150MM/253321474066?epid=630717819&hash=item3afb22f012:g:T7cAAOSwNWxaOgoA>  <https://www.amazon.com/10-JST-DS-2-0MM-Connector-female/dp/B06XYLH178> |
| Wires for battery connection to shield | 2 |  |  |
| [Battery charger](https://www.banggood.com/TP4056-Micro-USB-5V-1A-Lithium-Battery-Charging-Module-Board-TE585-Lipo-Charger-p-1225993.html?rmmds=search&cur_warehouse=UK) with micro USB cable | 1 |  |  |
| PCB card designed for NAROM 2018 CanSat kit | 2 |  | Can be ordered by mail from NAROM |
|  |  |  |  |
|  |  |  |  |
| Test [wire approx. 30 cm](https://www.digikey.no/product-detail/en/bud-industries/BC-32670/377-2262-ND/5291564) | 2 |  | Banggood: <https://www.banggood.com/40pcs-20cm-Male-To-Male-Color-Breadboard-Cable-Jumper-Cable-Dupont-Wire-p-70127.html?rmmds=search&cur_warehouse=CN> |
| [usb a-to-micro cable](http://no.farnell.com/molex/68784-0001/cable-assembly-usb-a-to-micro/dp/1617585) | 1 |  | <https://www.digikey.no/product-detail/en/phihong-usa/IP-USB1(C10)S/993-1294-ND/4935860> |
| [Parachute](https://www.apogeerockets.com/Building_Supplies/Parachutes_Recovery_Equipment/Parachutes/Low_Power/18_Nylon_Parachute) |  |  |  |
| Mechanics 3D printed or aluminium | 1 |  |  |
| Attachment for parachute (Eyebolt M5) | 1 |  |  |