|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Qty** | **$** | **Search Link** |
| INA333 | 3 | 4.42 | Digi key Part No : [296-23564-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/INA333AIDGKR/296-23564-1-ND/1886116)  Manufacturer No: [INA333AIDGKR](http://www.digikey.com/product-detail/en/texas-instruments/INA333AIDGKR/296-23564-1-ND/1886116) |
| HDMI 12 lead ECG/EKG Cable with lead wires | 1 | 35 |  |
| ECG/EKG electrodes adapter | 12 | - |  |
| ADS1298 | 2 | 41.81 | Digi key Part No : [296-27734-ND](http://www.digikey.com/product-detail/en/texas-instruments/ADS1298IPAG/296-27734-ND/2360825)  Manufacturer No: [ADS1298IPAG](http://www.digikey.com/product-detail/en/texas-instruments/ADS1298IPAG/296-27734-ND/2360825) |
| KIT PERFORMANCE DEMO FOR ADS1298 | 1 | 200.56 | Digi key Part No : [296-30132-ND](http://www.digikey.com/product-detail/en/texas-instruments/ADS1298ECGFE-PDK/296-30132-ND/2353228)  Manufacturer No: [ADS1298ECGFE-PDK](http://www.digikey.com/product-detail/en/texas-instruments/ADS1298ECGFE-PDK/296-30132-ND/2353228) |
| TQFP64 adapter IC test socket | 1 | 18.68 | Search [Link](http://www.ebay.com/itm/QFP64-TQFP64-adapter-IC-test-socket-burning-seat-0-5m-programmer-LQFP64-seat-/351518438484) |
| HDMI Connector | 3 | 0.73 | Digi key Part No : [609-4614-1-ND](http://www.digikey.com/product-detail/en/amphenol-fci/10029449-111RLF/609-4614-1-ND/2785376)  Manufacturer No: [10029449-111RLF](http://www.digikey.com/product-detail/en/amphenol-fci/10029449-111RLF/609-4614-1-ND/2785376) |
| TiWi-uB2 (Bluetooth Module) | 1 | 12.30 | Digi key Part No : [450-0104-ND](http://www.digikey.com/product-detail/en/lsr/450-0104/450-0104-ND/3661880)  Manufacturer No: [450-0104](http://www.digikey.com/product-detail/en/lsr/450-0104/450-0104-ND/3661880) |
| TXB0106PWR (Bidirectional Voltage-Level Translator) | 3 | 1.92 | Digi key Part No : [296-23759-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/TXB0106PWR/296-23759-1-ND/1951146)  Manufacturer No: [TXB0106PWR](http://www.digikey.com/product-detail/en/texas-instruments/TXB0106PWR/296-23759-1-ND/1951146) |
| STM32F4 01/11 Microcontroller | 2 | 6.25 | Digi key Part No : [497-14047-ND](http://www.digikey.com/product-detail/en/stmicroelectronics/STM32F401RCT6/497-14047-ND/4494300) / [497-14909-ND](http://www.digikey.com/product-detail/en/stmicroelectronics/STM32F411RET6/497-14909-ND/4935722)  Manufacturer No: [STM32F401RCT6](http://www.digikey.com/product-detail/en/stmicroelectronics/STM32F401RCT6/497-14047-ND/4494300)/ [STM32F411RET6](http://www.digikey.com/product-detail/en/stmicroelectronics/STM32F411RET6/497-14909-ND/4935722) |
| BOARD NUCLEO STM32F4 01/11 SERIES | 1 | 13.83 | Digi key Part No : [497-14360-ND](http://www.digikey.com/product-detail/en/stmicroelectronics/NUCLEO-F401RE/497-14360-ND/4695525) / [497-14711-ND](http://www.digikey.com/product-detail/en/stmicroelectronics/NUCLEO-F411RE/497-14711-ND/4866485)  Manufacturer No: [NUCLEO-F401RE](http://www.digikey.com/product-detail/en/stmicroelectronics/NUCLEO-F401RE/497-14360-ND/4695525) / [NUCLEO-F411RE](http://www.digikey.com/product-detail/en/stmicroelectronics/NUCLEO-F411RE/497-14711-ND/4866485) |
| USB2641 Flash Memory for Controller | 1 | 3.18 | Digi key Part No : [USB2641-HZH-02-ND](http://www.digikey.com/product-detail/en/microchip-technology/USB2641-HZH-02/USB2641-HZH-02-ND/3873174)  Manufacturer No: [USB2641-HZH-02](http://www.digikey.com/product-detail/en/microchip-technology/USB2641-HZH-02/USB2641-HZH-02-ND/3873174) |
| LIS2DH12TR | 1 | 1.60 | Digi key Part No : [497-14851-1-ND](http://www.digikey.com/product-detail/en/stmicroelectronics/LIS2DH12TR/497-14851-1-ND/4899838)  Manufacturer No: [LIS2DH12TR](http://www.digikey.com/product-detail/en/stmicroelectronics/LIS2DH12TR/497-14851-1-ND/4899838) |
| ESD suppressor | 20 | 0.47 | Digi key Part No : [296-30406-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/TPD1E10B06DPYR/296-30406-1-ND/3283560)  Manufacturer No: [TPD1E10B06DPYR](http://www.digikey.com/product-detail/en/texas-instruments/TPD1E10B06DPYR/296-30406-1-ND/3283560) |
| TS5A3159 | 3 | 0.85 | Digi key Part No : [296-19265-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/TS5A3159ADBVR/296-19265-1-ND/936397)  Manufacturer No: [TS5A3159ADBVR](http://www.digikey.com/product-detail/en/texas-instruments/TS5A3159ADBVR/296-19265-1-ND/936397) |
| OPA2379 | 2 | 1.41 | Digi key Part No : [296-19875-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/OPA379AIDCKT/296-19875-1-ND/1120791)  Manufacturer No: [OPA379AIDCKT](http://www.digikey.com/product-detail/en/texas-instruments/OPA379AIDCKT/296-19875-1-ND/1120791) |
| USBULC6-2M6 | 2 | 1.21 | Digi key Part No : [497-7044-1-ND](http://www.digikey.com/product-detail/en/stmicroelectronics/USBULC6-2M6/497-7044-1-ND/1880382)  Manufacturer No: [USBULC6-2M6](http://www.digikey.com/product-detail/en/stmicroelectronics/USBULC6-2M6/497-7044-1-ND/1880382) |
| AB38T-32.768KHZ (XT oscillator) | 2 | 0.57 | Digi key Part No : [300-8340-1-ND](http://www.digikey.com/product-detail/en/citizen-finedevice-co-ltd/CMR200T32768DZFT/300-8340-1-ND/862984)  Manufacturer No: [CMR200T32768DZFT](http://www.digikey.com/product-detail/en/citizen-finedevice-co-ltd/CMR200T32768DZFT/300-8340-1-ND/862984) |
| CRYSTAL 10MHz | 2 | 0.28 | Digi key Part No : [535-9065-1-ND](http://www.digikey.com/product-detail/en/abracon-llc/ABLS-10.000MHZ-B2-T/535-9065-1-ND/675582)  Manufacturer No: [ABLS-10.000MHZ-B2-T](http://www.digikey.com/product-detail/en/abracon-llc/ABLS-10.000MHZ-B2-T/535-9065-1-ND/675582) |
| EXB-2HV510JV (Resistor Array 51ohm) | 5 | 0.037 | Digi key Part No : [EXB-2HV510JV-ND](http://www.digikey.com/product-search/en?keywords=%20EXB-2HV510JV)  Manufacturer No: [EXB-2HV510JV](http://www.digikey.com/product-search/en?keywords=%20EXB-2HV510JV) |
| 2450AT42A100E (Bluetooth Antenna) | 2 | 1.10 | Digi key Part No : [712-1007-1-ND](http://www.digikey.com/product-detail/en/johanson-technology-inc/2450AT42A100E/712-1007-1-ND/1560836)  Manufacturer No: [**2450AT42A100E**](http://www.digikey.com/product-detail/en/johanson-technology-inc/2450AT42A100E/712-1007-1-ND/1560836) |
| EXB2HV104JV (Resistor Array 100 ohm) | 2 | 0.55 | Digi key Part No : [Y1104CT-ND](http://www.digikey.com/product-detail/en/panasonic-electronic-components/EXB-2HV104JV/Y1104CT-ND/285405)  Manufacturer No: [EXB-2HV104JV](http://www.digikey.com/product-detail/en/panasonic-electronic-components/EXB-2HV104JV/Y1104CT-ND/285405) |
| uSD MicroSD Connector | 1 | 1.11 | Part No : [MEM2051-00-195-00-A](http://www.newark.com/jsp/search/productdetail.jsp?sku=05W3557) |
| AT24CS01-STUM-T (EEPROM 1KBIT) | 1 | 0.33 | Digi key Part No : [AT24CS01-STUM-TCT-ND](http://www.digikey.com/product-detail/en/atmel/AT24CS01-STUM-T/AT24CS01-STUM-TCT-ND/3973039)  Manufacturer No: [AT24CS01-STUM-T](http://www.digikey.com/product-detail/en/atmel/AT24CS01-STUM-T/AT24CS01-STUM-TCT-ND/3973039) |
| CRYSTAL 24MHz | 2 | 0.44 | Digi key Part No : [535-9881-1-ND](http://www.digikey.com/product-detail/en/abracon-llc/ABLS2-24.000MHZ-D4YF-T/535-9881-1-ND/2001504)  Manufacturer No: [ABLS2-24.000MHZ-D4YF-T](http://www.digikey.com/product-detail/en/abracon-llc/ABLS2-24.000MHZ-D4YF-T/535-9881-1-ND/2001504) |
| LittelFuse Inc. 1206L075THYR | 4 | 0.48 | Digi key Part No : [F3370CT-ND](http://www.digikey.com/product-detail/en/littelfuse-inc/1206L075THYR/F3370CT-ND/2090987)  Manufacturer No: [1206L075THYR](http://www.digikey.com/product-detail/en/littelfuse-inc/1206L075THYR/F3370CT-ND/2090987) |
| Connector 1x5 | 4 | 1.49 | Digi key Part No : [478-5453-1-ND](http://www.digikey.com/product-detail/en/avx-corporation/009155005541006/478-5453-1-ND/2001014)  Manufacturer No: [009155005541006](http://www.digikey.com/product-detail/en/avx-corporation/009155005541006/478-5453-1-ND/2001014) |
| Connector 1 row | 3 |  | [Link](http://www.traceparts.cn/Content/en/Product/wurth-elektronik/WRTH-ELEKTRONIK-ELECTROMECHANICAL-COMPONENTS-BTBBoard-To-Board-Socket-Header-254/10-05032015-066216?ClassificationID=WURTH_ELEKTRONIK&CategoryPath=|F_WURTH|WURTH.010|WURTH.010.010|WURTH.010.010.020|) / [Link2](http://www.traceparts.cn/Content/en/Product/wurth-elektronik/WRTH-ELEKTRONIK-ELECTROMECHANICAL-COMPONENTS-BTBBoard-To-Board-Socket-Header-200/10-05032015-066995?ClassificationID=WURTH_ELEKTRONIK&CategoryPath=|F_WURTH|WURTH.010|WURTH.010.010|WURTH.010.010.020|) / [link3](http://www.traceparts.cn/Content/en/Product/wurth-elektronik/WRTH-ELEKTRONIK-ELECTROMECHANICAL-COMPONENTS-BTBBoard-To-Board-Socket-Header-200/10-05032015-066995?ClassificationID=WURTH_ELEKTRONIK&CategoryPath=|F_WURTH|WURTH.010|WURTH.010.010|WURTH.010.010.020|) |
| Power Schematic Components | | | |
| TLV61220 (DC to DC voltage Regulator) | 5 | 0.92 | Digi key Part No : [296-30547-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/TLV61220DBVR/296-30547-1-ND/3458120)  Manufacturer No: [TLV61220DBVR](http://www.digikey.com/product-detail/en/texas-instruments/TLV61220DBVR/296-30547-1-ND/3458120) |
| DS2710 | 2 | 3.87 | Digi key Part No : [DS2710G+T&RCT-ND](http://www.digikey.com/product-detail/en/maxim-integrated/DS2710G%2BT%26R/DS2710G%2BT%26RCT-ND/4807776)  Manufacturer No: [DS2710G+T&R](http://www.digikey.com/product-detail/en/maxim-integrated/DS2710G%2BT%26R/DS2710G%2BT%26RCT-ND/4807776) |
| LM3671 | 2 | 0.92 | Digi key Part No : [LM3671MF-3.3/NOPBCT-ND](http://www.digikey.com/product-detail/en/texas-instruments/LM3671MF-3.3%2FNOPB/LM3671MF-3.3%2FNOPBCT-ND/1590190)  Manufacturer No: [LM3671MF-3.3/NOPB](http://www.digikey.com/product-detail/en/texas-instruments/LM3671MF-3.3%2FNOPB/LM3671MF-3.3%2FNOPBCT-ND/1590190) |
| TPS61070 | 2 | 1.38 | Digi key Part No : [296-17151-1-ND](http://www.digikey.com/product-detail/en/texas-instruments/TPS61070DDCR/296-17151-1-ND/665930)  Manufacturer No: [TPS61070DDCR](http://www.digikey.com/product-detail/en/texas-instruments/TPS61070DDCR/296-17151-1-ND/665930) |
| **BQ2000** | 2 | 1.63125 | Digi key Part No : [296-25915-2-ND](http://www.digikey.com/product-detail/en/BQ2000SN-B5TR/296-25915-2-ND/1689991)  Manufacturer No: [BQ2000SN-B5TR](http://www.digikey.com/product-detail/en/BQ2000SN-B5TR/296-25915-2-ND/1689991) |
| **Estimated Cost** | | **359.3283$** | **37609.10 /.Rs** |

|  |  |
| --- | --- |
| **Comparison** | |
| **Arduino (Atmega2560)** | **STM32F401** |
| 100 pin IC | 64 /100 pins |
| 8 Bit controller | 32bit Controller |
| 1 MIPS per MHz | 1.25 DMIPS/MHz |
| Flash 256 Kb | 256KB Flash |
| EEPROM 4kb |  |
| RAM 8 kb | 64KB RAM |
| I/O Pins 86 | Up to 81 I/O ports |
| ADC Channel 16 | 16 |
| Digital Voltage Supply 5v | 1.7 to 3.6 V |
| 16 MHZ | frequency up to 84 MHz |
|  | Advanced connectivity – USB 2.0 full-speed device/host/OTG controller with on-chip PHY |
| 17.46 $ | 6.25 $ |

**12 Channel ECG cable have 10 Wires because of Eindhoven’s Triangle**



