

DECKARD'S DREAM BILL OF MATERIALS REV 1.0.8

| VALUE | DESIGNATOR | QUANTITY | FOOTPRINT | NOTE | MOUSER PART # |
|---------|--|----------|--------------------------|---|---|
| 15uF | C100, C101 | 2 | 5MM DIA / 2MM LS | ELECTROLYTHIC CAPACITOR | 568-156PUM035M |
| 0.1uF | C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100, C102, C103, C104 | 99 | SMT 0805 | CERAMIC CAPACITOR | 581-08055C104K |
| CD4051 | IC2, IC3, IC5, IC6, IC8, IC9, IC11, IC12, IC14, IC15 | 10 | DIP16 | ANALOG MULTIPLEXER/DEMULTIPLEXER | 565-CD4051BE |
| 74HC595 | IC4, IC7, IC10, IC13, IC16 | 5 | DIP16 | 8-BIT SHIFT REGISTER WITH 3-STATE OUTPUT REGISTER | 565-SN74HC595N |
| | PLD1 | 1 | PLD-10 | 2.54M PITCH 2X5 MALE HEADER | 517-929975-01-05-RK |
| | PLD2 | 1 | PLD-12 | 2.54M PITCH 2X6 FEMALE HEADER | 517-929975-01-06-RK |
| 47K | R1, R2, R3, R4, R5, R11, R12, R13, R14, R19, R20 | 11 | | 1/4W 1% RESISTOR | 271-47K-RC |
| 10K | R6, R7, R8, R9, R10, R15, R16, R17, R18, R21, R22 | 11 | | 1/4W 1% RESISTOR | 271-10K-RC |
| 1K | R23, R24, R26, R27, R28, R29, R30, R31, R32, R33 | 10 | | 1/4W 1% RESISTOR | 271-1K-RC |
| | SW1, SW2, SW3, SW4 | 4 | | DPDT SLIDE SWITCH | 612-EG2201B |
| | SW5 | 1 | | SLIDE SWITCH | 612-EG2301B |
| | 10-100K LINEAR | 5 | | DPDT POTENTIOMETER 30MM TRAVEL | 652-PTA20432015BR104 |
| | 10-100K LINEAR | 10 | | SLIDE POTENTIOMETER 20MM TRAVEL | 652-PTA20432015CPB104 |
| | 10-100K LINEAR | 9 | | SLIDE POTENTIOMETER 20MM TRAVEL CENTER DETENT | 652-PTA2432215CPB104 |
| | 10-100K LINEAR | 1 | | 9MM METAL ROUND SHAFT POTENTIOMETER | http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount/ |
| | BT1, BT2, BT3, BT4, BT5 | 5 | 6x6MM | TACT SWITCH 15MM HEIGHT | http://www.ebay.com/itm/23219028351 |
| | OLED | 1 | 0.96" 12C ITC SPI SERIAL | 128X64 WHITE OLED DISPLAY | http://www.ebay.com/itm/172518846641 |

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|---------------|---|----------|-------------------|--|--|
| | BREAKOUT | 1 | IDC-16 | 16 PIN IDC MALE HEADER | 571-1761681-6 |
| 330uF | C288, C289, C333, C338 | 4 | 10MM DIA / 5MM LS | ELECTROLYTHIC CAPACITOR | 667-ECA-1VM331 |
| 150uF | C1, C2, C3, C4, C5, C34, C35, C36, C86, C87, C88, C89, C282, C283, C339, C340 | 16 | 5MM DIA / 2MM LS | ELECTROLYTHIC CAPACITOR | 568-156PUM035M |
| 0.1uF | C11, C13, C14, C15, C16, C18, C19, C20, C21, C23, C24, C30, C33, C38, C40, C43, C56, C52, C55, C62, C64, C67, C74, C76, C79, C80, C91, C93, C95, C98, C102, C103, C107, C110, C111, C113, C114, C118, C123, C127, C128, C130, C131, C133, C135, C136, C138, C145, C146, C148, C149, C151, C153, C156, C163, C164, C167, C169, C172, C185, C187, C188, C203, C205, C208, C221, C223, C226, C239, C241, C244, C250, C251, C253, C254, C257, C259, C262, C268, C269, C270, C271, C274, C275, C280, C281, C290, C291, C296, C297, C298, C299, C306, C309, C310, C311, C314, C317, C319, C320, C336, C337 | 101 | SMT 0805 | CERAMIC CAPACITOR | 581-08055C104K |
| 10uF | C8 | 1 | SMT 0805 | CERAMIC CAPACITOR | 983-EMK212BJ106KG-T |
| 4.7uF | C17, C39, C41, C42, C51, C53, C54, C63, C65, C66, C75, C77, C78, C94, C96, C97, C114, C116, C117, C134, C136, C137, C152, C154, C155, C168, C170, C171, C188, C189, C198, C206, C207, C222, C234, C225, C240, C242, C243, C258, C260, C261 | 43 | 5MM LS | CERAMIC CAPACITOR | 810-FG28XR1C475K |
| 2.2uF | C7, C8, C108, C124 | 4 | 5MM LS | CERAMIC CAPACITOR | 810-FG28XR1E225KR76 |
| 1uF | C12, C34, C35 | 3 | 5MM LS | CERAMIC CAPACITOR | 810-FG28XR1H105KR70 |
| 0.47uF | C165, C166, C173, C174, C175, C176, C179, C180, C183, C184, C191, C192, C193, C194, C197, C198, C201, C202, C209, C210, C211, C212, C215, C216, C219, C220, C227, C228, C229, C230, C233, C234, C237, C238, C245, C246, C247, C248, C249, C252, C255, C256, C263, C264, C265, C266, C267 | 47 | 5MM LS | CERAMIC CAPACITOR | 810-FG26X7R1H474K76 |
| 0.01uF | C25, C32, C44, C45, C48, C49, C56, C57, C60, C61, C66, C69, C72, C73, C80, C81, C84 | 17 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H103JNT6 |
| 500uF | C22, C292, C295, C300, C303, C304, C307, C312, C315, C318, C323, C325, C326 | 13 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H561JNT0 |
| 100uF | C85, C92, C99, C100, C101, C104, C105, C106, C109, C112, C119, C120, C121, C122, C125, C126, C129, C132, C139, C140, C141, C142, C143, C144, C147, C150, C157, C158, C159, C160, C161, C162, C272, C273, C276, C277, C288, C287, C188, C198, C204, C206, C207, C222, C234, C313, C314, C321, C322, C324, C326, C327, C331 | 52 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H101JNT6 |
| 22pF | C9, C10 | 2 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H220JNT6 |
| 1uF | C32, C34 | 2 | 5MM LS | FILM CAPACITOR | 80-R82DC100A60J |
| 100nF | C29 | 1 | 5MM LS | FILM CAPACITOR | 80-R82EC3100D070J |
| 1nF | C31 | 1 | 5MM LS | FILM CAPACITOR | 80-R82EC1100Z350J |
| BAT43 | D1, D2 | 2 | DO-35 | SMALL SIGNAL SCHOTTKY DIODE | 511-BAT43 |
| STM32F405RGT6 | IC1 | 1 | LQFP64 | ARM CORTEX-M4 32 BIT MCU | PREINSTALLED |
| SST25VF040B | IC2 | 1 | SOIC8 | 4 MBIT SPI SERIAL FLASH | PREINSTALLED |
| MAX5134 | IC8, IC11, IC13, IC15 | 4 | TSSOP16 | QUAD 18 BIT VOLTAGE-OUTPUT DAC | PREINSTALLED |
| MAX5592 | IC17, IC21, IC24, IC27, IC30, IC33, IC36, IC39, IC42, IC45 | 10 | TSSOP28 | OCTAL 12 BIT VOLTAGE-OUTPUT DAC | PREINSTALLED |
| TPA512 | IC59 | 1 | SOIC8 | 75-mW STEREO AUDIO POWER AMPLIFIER | PREINSTALLED |
| CD4051 | IC3, IC4 | 2 | DIP16 | ANALOG MULTIPLEXER/DEMULTIPLEXER | 565-CD4051BE |
| TL072 | IC5, IC6, IC51, IC58 | 4 | DIP8 | DUAL OPERATIONAL AMPLIFIER | 565-TL072IP |
| PENTANOISE | IC7 | 1 | DIP8 | NOISE GENERATOR | http://selectnoid.net/product/pentanoise-noise-generator/ |
| TL431 | IC9, IC18 | 2 | TO-92 | PRECISION PROGRAMMABLE REFERENCE | 565-TL431CP |
| TL074 | IC19, IC20, IC22, IC23, IC25, IC26, IC28, IC29, IC43, IC44, IC46, IC47, IC48, IC50, IC52, IC54, IC56 | 17 | DIP14 | QUAD OPERATIONAL AMPLIFIER | 565-TL074CN |
| V2164 | IC53, IC55, IC57 | 3 | DIP16 | QUAD VOLTAGE CONTROLLED AMPLIFIER | https://www.thonk.co.uk/shop/booleudo-v2164-all/ http://synthcube.com/cart/dm-60x-v2164-ic |
| TLV431 | IC61 | 1 | TO-92 | LOW-VOLTAGE ADJUSTABLE PRECISION SHUNT | 565-TLV431ALPR |
| PLD-10 | PBD1 | 1 | PBD-10 | 2.54M PITCH 2X5 MALE HEADER | 517-929975-01-05-RK |
| PLD-12 | PBD2 | 1 | PBD-12 | 2.54M PITCH 2X6 MALE HEADER | 517-929975-01-06-RK |
| RLML2402 | Q1 | 1 | SO23 | MOSFET | PREINSTALLED |
| 120K | R188, R190 | 2 | | 1/4W 1% RESISTOR | 271-120K-RC |
| 100K | R21, R46, R48, R50, R52, R54, R56, R58, R60, R62, R63, R65, R67, R69, R71, R73, R77, R81, R82, R84, R86, R88, R90, R92, R94, R97, R98, R100, R102, R104, R106, R108, R110, R113, R114 | 33 | | 1/4W 1% RESISTOR | 271-100K-RC |
| 51K | R45, R47, R49, R51, R53, R55, R59, R60, R64, R66, R68, R70, R72, R75, R79, R80, R83, R85, R87, R89, R91, R93, R95, R96, R99, R101, R103, R105, R107, R109, R111, R112 | 32 | | 1/4W 1% RESISTOR | 271-51K-RC |
| 47K | R2 | 1 | | 1/4W 1% RESISTOR | 271-47K-RC |
| 30K | R165, R170, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R189, R191, R192, R193, R196, R197, R199, R199, R200, R203, R204, R206, R208, R210, R211, R214, R216, R217, R220, R221, R222, R223, R224, R225, R228, R229, R230, R231, R236, R237 | 45 | | 1/4W 1% RESISTOR | 271-30K-RC |
| 22K | R162, R167 | 2 | | 1/4W 1% RESISTOR | 271-22.6K-RC |
| 22K | R209, R215 | 2 | | 1/4W 1% RESISTOR | 271-22K-RC |
| 20K | R238, R239, R240, R242, R243, R245 | 6 | | 1/4W 1% RESISTOR | 271-20K-RC |
| 10K | R6, R7, R8, R9, R10, R11, R27, R32, R37, R42, R78, R163, R164, R166, R168, R169, R171 | 17 | | 1/4W 1% RESISTOR | 271-10K-RC |
| 5K | R20 | 1 | | 1/4W 1% RESISTOR | 271-5.6K-RC |
| 4K7 | R3, R4, R13 | 3 | | 1/4W 1% RESISTOR | 271-4.7K-RC |
| 2K | R74 | 1 | | 1/4W 1% RESISTOR | 271-2K-RC |
| 2K2 | R15 | 1 | | 1/4W 1% RESISTOR | 271-2.2K-RC |
| 1K3 | R76 | 1 | | 1/4W 1% RESISTOR | 271-1.3K-RC |
| 1K | R1, R12, R14, R22, R23, R24, R25, R26, R28, R29, R30, R31, R33, R34, R35, R36, R38, R39, R40, R41, R43, R44, R45, R46, R47, R48, R49, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100, R101, R102, R103, R104, R105, R106, R107, R108, R109, R110, R111, R112, R113, R114, R115, R116, R117, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151, R152, R153, R154, R155, R156, R157, R158, R159, R160, R161 | 72 | | 1/4W 1% RESISTOR | 271-1K-RC |
| 499R | R194, R195, R200, R201, R206, R207, R212, R213, R218, R219, R226, R227 | 12 | | 1/4W 1% RESISTOR | 271-499-RC |
| 100R | R241, R244 | 2 | | 1/4W 1% RESISTOR | 271-100-RC |
| 22R | R5 | 1 | | 1/4W 1% RESISTOR | 271-22-RC |
| STLINK | | 1 | IDC-20 | 20 PIN IDC MALE HEADER | 571-1761681-7 |
| BAT85S | Z1, Z2, Z3 | 3 | DO-35 | SCHOTTKY BARRIER RECTIFIER | 78-BAT85S-TAP |
| 8MHz | ZD1 | 1 | HC-49US | AUTOCUT CRYSTAL UNIT | 685-HC49US-8-U |
| | J1 | 1 | | 1/4" STEREO JACK | 502-112BX |
| | POWER, VOICE1, VOICE2, VOICES, VOICE4, VOICES, VOICE6, VOICE7, VOICES8 | 9 | EDAC-44 | 44PIN EDGE CONNECTOR | http://www.ebay.com/itm/130486232450 |

| VALUE | DESIGNATOR | QTY (Y CARDS) | QTY (B CARDS) | FOOTPRINT | NOTE | MOUSER PART # |
|---------|--|---------------|---------------|------------------|---------------------------------------|--|
| 220uF | C1, C2, C3, C4 | 4 | 32 | 8MM DIA / 3.5 LS | ELECTROLYTHIC CAPACITOR | 667-ECA-1VM221 |
| 47uF | C11, C82 | 2 | 16 | 5MM DIA / 2MM LS | ELECTROLYTHIC CAPACITOR | 667-ECA-1CM470 |
| 1uF | C30, C31, C42, C77, C97, C98, C109, C142 | 8 | 64 | 5MM DIA / 2MM LS | ELECTROLYTHIC NON-POLARIZED CAPACITOR | 647-UVP1H010MD1D1D |
| 0.1uF | C5, C6, C7, C8, C12, C13, C16, C18, C20, C21, C22, C23, C24, C25, C26, C27, C28, C37, C40, C41, C46, C47, C48, C50, C54, C56, C57, C58, C59, C61, C71, C72, C73, C74, C83, C84, C87, C89, C91, C92, C93, C94, C102, C104, C107, C108, C113, C114, C116, C117, C122, C123, C125, C126, C138, C137, C138, C139 | 58 | 464 | SMT 0805 | CERAMIC CAPACITOR | 581-08055C104K |
| 0.01uF | C9, C10, C19, C80, C81, C90 | 6 | 48 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H103JNT6 |
| 1000pF | C14, C15, C17, C85, C86, C88 | 6 | 48 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H102JNT6 |
| 500pF | C33, C34, C36, C44, C45, C46, C48, C51, C54, C62, C66, C67, C70, C75, C79, C100, C101, C103, C111, C112, C115, C116, C121, C127, C131, C132, C135, C140, C144 | 28 | 224 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H561JNT6 |
| 180pF | C32, C43, C49, C110 | 4 | 32 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H181JNT6 |
| 100nF | C52, C53, C59, C63, C64, C65, C68, C69, C78, C79, C119, C120, C124, C128, C129, C130, C133, C134, C141, C143 | 20 | 160 | 5MM LS | CERAMIC CAPACITOR | 810-FG28CG0G1H101JNT6 |
| 1.5uF | C28, C29, C38, C39, C85, C86, C105, C108 | 8 | 64 | 5MM LS | FILM CAPACITOR | 80-R82EC110A0A5J |
| CEM3340 | IC1, IC16 | 2 | 16 | DIP16 | VOLTAGE CONTROLLED OSCILLATOR | https://www.thonk.co.uk/shop/curtis-cem3340-ic-vcv-chip/ http://synthcube.com/cart/dm-onchip-cem3340-x-17 |
| TL074 | IC2, IC6, IC7, IC12, IC14, IC17, IC19, IC20, IC25, IC26 | 10 | 80 | DIP14 | QUAD OPERATIONAL AMPLIFIER | 565-TL074CN |
| 74LS74 | IC3 | 1 | 8 | DIP14 | POSITIVE EDGE TRIGGERED FLIP FLOP | 565-SN74LS74AN |
| DG403 | IC4 | 1 | 8 | DIP16 | SPDT CMOS ANALOG SWITCH | 781-DG403DU-E3 |
| DG202 | IC5 | 1 | 8 | DIP16 | SPST CMOS ANALOG SWITCH | 781-DG202DU-E3 |
| TL072 | IC8, IC11, IC21, IC24 | 4 | 32 | DIP8 | DUAL OPERATIONAL AMPLIFIER | 565-TL072IP |
| V2164 | IC9, IC10, IC13, IC15, IC22, IC23, IC27 | 7 | 56 | DIP16 | QUAD VOLTAGE CONTROLLED AMPLIFIER | https://www.thonk.co.uk/shop/booleudo-v2164-all/ http://synthcube.com/cart/dm-60x-v2164-ic |
| 2N304 | Q1, Q2, Q3, Q4 | 4 | 4 | TO-92 | NPN TRANSISTOR | 106-2N304 |
| 4M7 | R52, R53, R57, R58, R158, R159, R173, R174 | 8 | 64 | | 1/4W 1% RESISTOR | 603-MFR-25FR52-4M7 |
| 1M5 | R5, R11 | 2 | 16 | | 1/4W 1% RESISTOR | 271-1.5M-RC |
| 1M2 | R60, R74, R166, R180 | 4 | 32 | | 1/4W 1% RESISTOR | 603-MFR-25FR52-1M2 |
| 1M | R37, R143 | 2 | 16 | | 1/4W 1% RESISTOR | 271-1.0M-RC |
| 300K | R6, R112 | 2 | 16 | | 1/4W 1% RESISTOR | 271-300K-RC |
| 150K | R56, R59, R61, R69, R162, R165, R167, R175 | 6 | 64 | | 1/4W 1% RESISTOR | 271-150K-RC |
| 120K | R88, R194 | 2 | 16 | | 1/4W 1% RESISTOR | 271-120K-RC |
| 107K | R24, R130 | 2 | 16 | | 1/4W 1% RESISTOR | 271-107K-RC |
| 100K | R18, R28, R41, R43, R44 | | | | | |