**Pi1541 – Switch Rev. 2**

**Module description**

# Description

The Pi1541-Switch is a detachable switch board for the Pi1541 HAT (project number 111). The connector to the Pi1541 HAT is placed on the solder side of the PCB. Further on, the switches SW1, SW2 and SW3 can be replaced by a pin header (J3, placed on the solder side), which is designed for connecting a rotary encoder module (such as the KY-040), which is supported since the Pi1541 kernel v1.21, which was released in November 2019.

# Switches

The switches have functions according to the firmware and configuration, which can be found at this website: [https://cbm-pi1541.firebaseapp.com/](https://cbm-pi1541.firebaseapp.com/%20%20)

The default configuration is:

|  |  |
| --- | --- |
| Switch | Function |
| SW1 (left) | Select/Reset |
| SW2 | Move Up/Previous Disk |
| SW3 | Move Down/Next Disk |
| SW4 | Exit Folder |
| SW5 (right) | Insert Disk |

# LEDs

|  |  |  |
| --- | --- | --- |
| LED | Color | Function |
| LD2 | Green | Power Indicator |
| LD1 | Red | Busy Indicator |

# Connector

X3: 8p Micro Match, female, THT (Tyco or alternative)

The ribbon cable can also be soldered in directly.

|  |  |
| --- | --- |
| Pin | Signal |
| 1 | /SW1 |
| 2 | /SW2 |
| 3 | /SW3 |
| 4 | /SW4 |
| 5 | /SW5 |
| 6 | LED\_OUT (LD1) |
| 7 | +3V3 |
| 8 | GND |

## Rotary Encoder connector

J3 – 5-pin pin header (2.54mm pitch) vertical or 90°.

|  |  |
| --- | --- |
| Pin | Signal |
| 1 | GND |
| 2 | +3V3 |
| 3 | SW (/SW1\_IN) |
| 4 | DATA (/SW3\_IN) |
| 5 | CLK (/SW2\_IN) |

# Measures

Can be found in the board print out

# Revision History

Rev. 0: Prototype

Rev. 1: Moved the connector X3 to the solder side

Rev. 2: added J3 for connecting the rotary encoder.