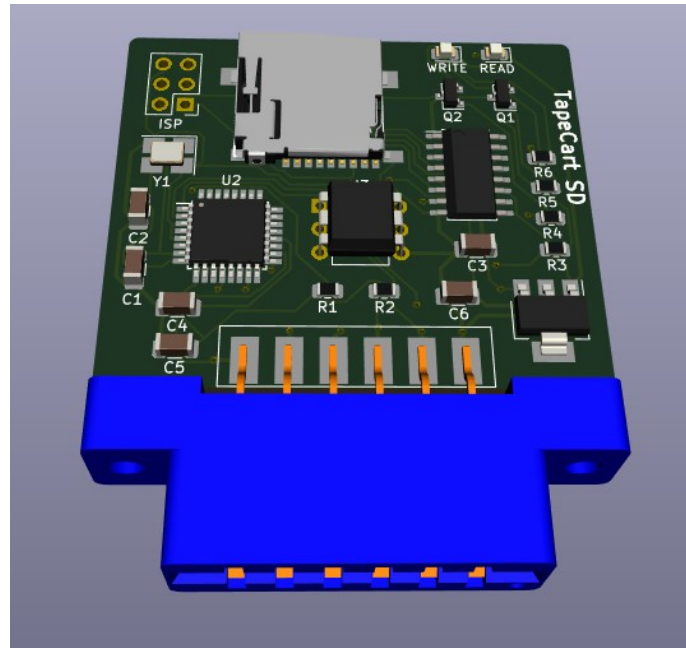


# TapeCart SD

## PCB v1.2



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# 1. Introduction

The Tapecart is a relatively new piece of hardware that was devised for the Commodore 64 by Unseen and enthusi and introduced in late 2016. The original device allowed you to load programs from serial flash ROM.

Tapecart SD is based on this idea and created by Kim Jorgensen and allows you to use a SD card now instead of flash ROM (Which was a pain to program)

Kim's github repository can be found here:

<https://github.com/KimJorgensen/tapecart>

Tapecart SD is a a fork of tapecart that adds SD card support using the Tapuino hardware.

www.myretrostore.co.uk

## 2. Usage

- Format a micro SD card with FAT32.
- Download browser.prg from <https://github.com/KimJorgensen/tapecart/releases/tag/v1.2>
- Copy browser.prg to the root of the SD Card.
- Make sure that C64 is powered off, plug in the Tapecart SD and power on C64
- Load browser.prg (Shift-Run/Stop)



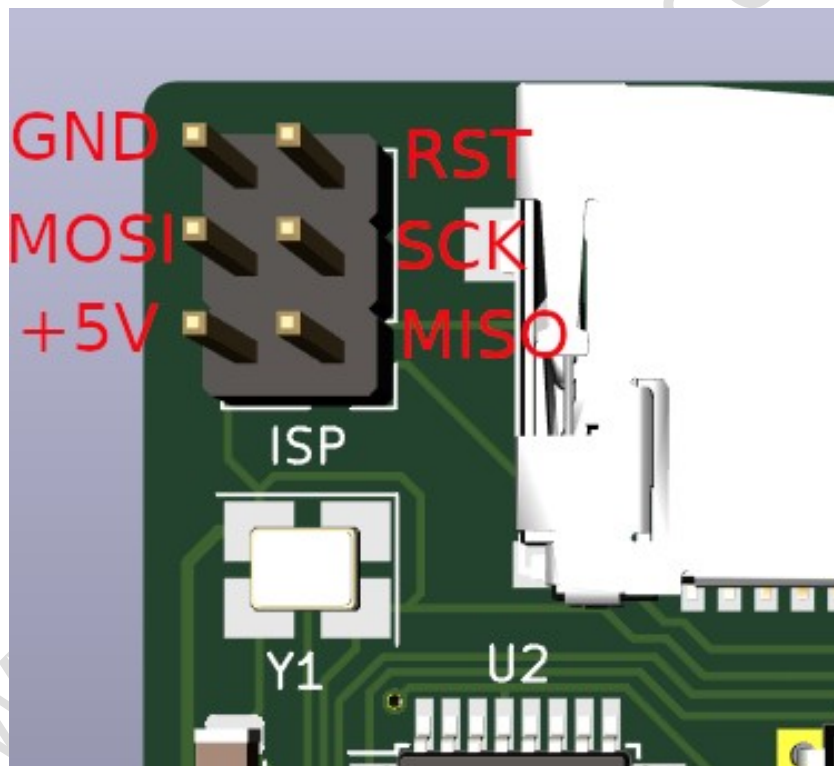
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### 3. Upgrading

Tools required:

- ISP Programmer like USBtinyISP
- tapecart.hex which can be downloaded from <https://github.com/KimJorgensen/tapecart/releases>
- avrdude which can be downloaded from <http://savannah.nongnu.org/projects/avrdude>

Connect the from the USBtinyISP to the PCB ISP header taking note of the pin connections.



Flash the hex file using the follow command (You will need to change the parameters if you are using a different ISP programmer)

```
avrdude -c usbtiny -p m328p -Uflash:w:tapecart.hex
```

```
avrdude: AVR device initialized and ready to accept instructions

Reading | ##### | 100% 0.01s

avrdude: Device signature = 0x1e950f (probably m328p)
avrdude: NOTE: "flash" memory has been specified, an erase cycle will be performed
        To disable this feature, specify the -D option.
avrdude: erasing chip
avrdude: reading input file "tapecart.hex"
avrdude: input file tapecart.hex auto detected as Intel Hex
avrdude: writing flash (21684 bytes):

Writing | ##### | 100% 12.74s

avrdude: 21684 bytes of flash written
avrdude: verifying flash memory against tapecart.hex:
avrdude: load data flash data from input file tapecart.hex:
avrdude: input file tapecart.hex auto detected as Intel Hex
avrdude: input file tapecart.hex contains 21684 bytes
avrdude: reading on-chip flash data:

Reading | ##### | 100% 11.39s

avrdude: verifying ...
avrdude: 21684 bytes of flash verified
```

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