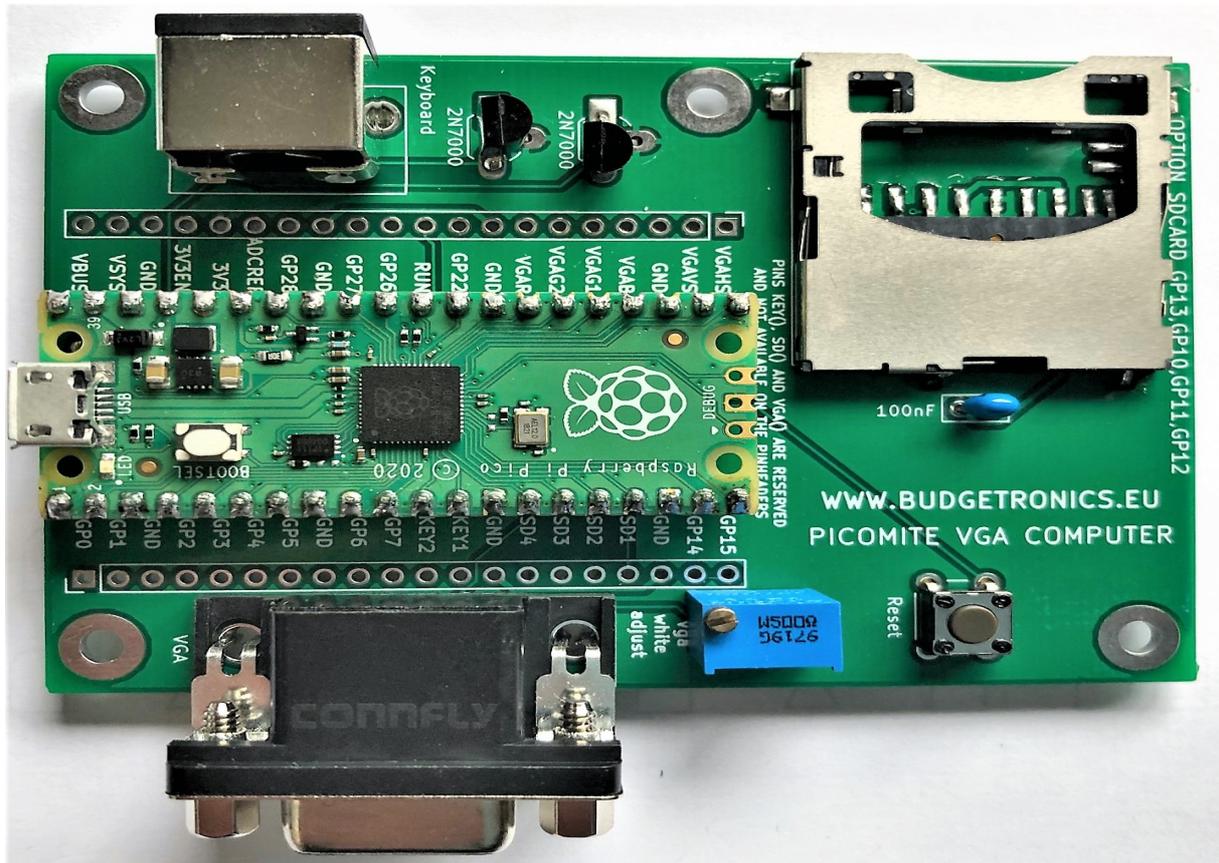


BUILDING KIT PICOMITE VGA COMPLETE COMPUTER WITH VGA OUT, KEYBOARD INPUT AND SD DRIVE



Specifications

- VGA output 640x480 pixels monochrome or 320x240 pixels in colour mode.
 - PS2 keyboard input
- Full featured very powerfull BASIC interpreter with floating point,64 bit integers and much more. It executes a program up to 100.000 lines a second.
 - Full SD card support
 - Full screen editor
 - Full graphic support
- USB interface to Windows/Mac/Linux computers
- Build in commands to directly interface DS18B20 temperature sensor, LCD displays, battery backed clock and more.
 - More

**READ THE PICOMITE VGA MANUAL FOR A FULL LIST OF ALL POSSEBILITIES
AND A TUTORIAL ON EASY PROGRAMMING THIS NICE COMPUTER**

Design and program made possible by Peter Mather, Geoff Graham, Mick Ames

Parts list

1x Raspberry Pi PICO module already programmed
1x PCB 88mm x 62mm
2x 2N7000
2x 1N4148 diodes
1x 100nF capacitor
1x High precision multiturn potmeter
1x push button
1x SD card holder
1x VGA connector
1x PS2 mini din connector
7x 220 Ohm resistors (red,red,brown)
4x 10K Ohm resistors (brown, black, orange)
2x 20 pins header

Building the kit

1. First solder in all the resistors and diodes. **Place the diodes in the correct position stripe on diode aligned to stripe on PCB.**
2. Place the 2N7000 (correctly oriëntated with flatside on PCB), the 100nf capacitor, the potmeter and the pushbutton.
3. Remove the plastic frame from the SD card holder. Place the SD card holder and line the pins out before soldering one pin. Reheat this pin if necessary to reallign the sd card holder. If all aligns well solder all the the other pins of the SD card holder, inside and outside. Check with a magnifying glass if all pins are making good contact.
4. Solder the 20 pin headers (after breaking it in two) to the Pico module and after this solder the complete module on to the PCB. **BUT MAKE SURE THE USB CONNECTOR OF THE PICO MODULE FACES OUTWARD AS SHOWN ON THE PICTURE!** If you solder it in the wrong way it will not work and it will be difficult to put things right again. *Also make sure all resistors and diodes are placed.*
5. Place the PS/2 connector and the VGA connector. Sometimes you have to push one of the outside pin rows of the vga connector a little bit inwards for an easy placement. You can do this by gently pushing the outside row softly against a straight table top. Not to much just a small bit about 0.1-0.2 mm inwards.
6. Check out all your soldering work and if all looks weel just connect the Picomite to a 5 volts USB power supply, a VGA monitor and a PS/2 keyboard. After powering the module wait a few seconds and a startup message will appear on the screen. If you do not see anything check your soldering.

If you finished building the kit read the PicoMite VGA manual for how to work with this computer and do NOT forget to set the SD drive with OPTION SDCARD GPI3,GPI0,GPI1,GPI2 (as shown on the PCB) otherwise the SD drive will not work. If you made a typo when entering this command on the command line and the SD drive does not work just use command "option reset" and type it in again. You only have to do this ONES because the module will remember this after power down.

The manual also explaines how to install and load the Picomite firmware but you do NOT have to do this we have already programmed the module for you.

In the manual you will see different Picomite designs. The Budgetronics design is comparable with design 1 (but more compact) as mentioned in the manual.