FPGA  field programmable gate array

Are you tired of
1. Spending a lot of time building circuit?
2. Throw away circuits built incorrectly?
3. Cannot copy and paste circuits?
4. Worry the circuit will smoke when you turn it on?
5. Waste material when the circuit is no longer useful?

FPGA comes to your rescue.

Other stuffs: CLK, Power supply, USB, SD card, 40 pins, Expansion slots, Flash/RAM, 13, 10, 4, 7. segment display, 0/1 switch, LED display, ADC/DAC.
Configurable Logic block (CLB)

4-6 inputs

LUT → FA → FF → output

Look-up Full adder
Table addition

How do you build a look-up table (LUT)?

Switch block:

6 possible connections

This is called routing