Physical input (clock, reset, keys, switches)

Physical output (LEDs)

avalon

internal data transfer buses

sockit

Linux on ARM

- Manage the avalon bridge
- Receive ssh and scp connections

Generated (QSys)

Convert avalon protocol into usable signals

memory_io

Manual VHDL

Divide clock frequency

sockit_pll

Manual VHDL

Update the LED status

io_led

Generated VHDL by CλaSH

Perform useful operations:
- control the Avalon bridge
  - bidirectional control channel
  - output channel
  - input channel
- read physical input
- write physical output

compute_main

Ethernet

HPS : FPGA

Desktop

Control FPGA through HPS over ssh

Host