

Electronic Systems of Computers

Lab Assignments

First assignment (done)

- Modify IOb-SoC's firmware to print Fibonacci numbers
- Simulate
- Run on FPGA board

Second assignment (due 10/12/22)

- Add GPIO peripheral to IOB-SoC
- Modify firmware to drive GPOs
- Modify firmware to read GPIs
- Simulate
- Run on FPGA board

Project proposal (due 15/12/22)

- Propose a IOb-SoC system that uses the resources of the BASYS3 FPGA board
- Firmware and peripherals that read buttons and switches and write to display and VGA
- External hardware may be added to project (be careful with voltage compatibility, study docs and schematics)
- CAUTIONS: hold USB socket with one hand while plugging with the other hand

Project execution (due 15/01/23)

- Prepare 10 minute slide presentation
 - Short intro mentioning other works 1-2 slides
 - Project description: 6 slides
 - Conclusion: 2 slides (what you learned, what you did, directions for continuation)
- Demo the project in the Lab (5 minutes)