

Your own MIPS Processor implementation

1. Define the instruction formats
2. Draw the data-path of the processor
3. Present the instruction encoding (the "Opcode" for all implemented instructions)
4. Write RTL abstract and RTL concrete for all implemented instructions
5. Write a relevant assembly program using the instructions you implemented
6. Implement the MIPS processor in VHDL
7. Connect the UART transmit and/or receive components to your processor
8. Design the Test Environment using a Digilent Development Board:
 - LEDs
 - Buttons
 - Switches
 - 4-digit Seven Segment Display
 - UART Transmit
 - UART Receive

What signals are connected and where?

9. Present your own MIPS processor implementation to your TA