1. Install TinyGarble from [TinyGarble/README.md at master · esonghori/TinyGarble · GitHub](https://github.com/esonghori/TinyGarble/blob/master/circuit_synthesis/README.md).
2. After ./configure and make, for general purpose CPU go to the directory: bin/scd/netlist then copy /a23\_gc\_main.v to your Vivado project.
3. Go to a23 folder of repository.
4. Install the dependencies.
5. Generate instructions by changing one of the benchmarks make file to the address of your .c and store these instructions from .mem file to the p.txt (if you face problem related to arm version go and change it in the a23/include/common.mk to arm4 or 6)
6. To extract instructions from .s use QtSpim simulator.
7. Store instructions on a memory on FPGA and change the way that data will store in GarbledCPU instruction memory and data memory. (combine e.tx and g.txt and store them on data\_memory, store p.txt on instruction memory)
8. Generate netlist.v using Vivado and synthesize it.

Appendix:

1. To test the specific hamming distance GarbledCPU use bin/scd/mips\_64.v and generate instructions from circuit\_synthesis/mips/test/benchmark/hamming.s using QtSim.