Install Ubuntu 20.04 and follow these Steps:

Source: https://github.com/gadepall/vaman/tree/master/installation

sudo apt update && sudo apt upgrade -y

1 cd

2 sudo apt install build-essential libssl-dev libffi-dev python3-dev bison flex git tcl-dev tcl-tclreadline libreadline-dev autoconf libtool make automake texinfo pkg-config libusb-1.0-0 libusb-1.0-0-dev telnet python3 apt-utils libxslt-dev python3-lxml python3-simplejson cmake curl python3-pip subversion git

3 sudo pip3 install wheel python-constraint serial tinyfpgab

4 mkdir -p ~/symbiflow

5 export INSTALL_DIR=/home/"UserName"/symbiflow

Note:
Download "arch.tar.gz" using the weblink given below
https://iith-my.sharepoint.com/:u:/g/personal/gadepall_ee_iith_ac_in/Ebot5QHEYXBAo-7n4hnvJu0B8vMrTIdj_COHJC2cmDY1ww?e=bqDxHI

6 cp /home/"UserName"/Downloads/arch.tar.gz .

7 tar -C $INSTALL_DIR -xvf ~/arch.tar.gz

8 export PATH
="$INSTALL_DIR/quicklogic-arch-defs/bin:$INSTALL_DIR/quicklogic-arch-defs/bin/python:$PATH"

9 cd

10 git clone --recursive https://github.com/optimuslogic/pygmy-dev

11 cd pygmy-dev/tools/quicklogic-fasm

12 nano requirements.txt

#edit the file as below#

-e git+https://github.com/symbiflow/fasm.git#egg=fasm
-e git+https://github.com/antmicro/quicklogic-fasm-utils.git#egg=fasm-utils

ctrl+X and select 'y' to save

```
13  pip3 install -r requirements.txt

14  sudo python3 setup.py install

15  cd

16  cd pygmy-dev/tools/quicklogic-yosys

17  make config-gcc

18  make -j4 install PREFIX=$INSTALL_DIR

19  cd

20  #

21  cd /home/"UserName"/pygmy-dev/tools/yosys-symbiflow-plugins

22  export PATH=$INSTALL_DIR/bin:$PATH

23  make -j4 install

24  cd ../vtr-verilog-to-routing

25  make -j4

26 #

27  cd ..

28  cp vtr-verilog-to-routing/build/vpr/vpr  $INSTALL_DIR/bin

29  cp vtr-verilog-to-routing/build/utils/fasm/genfasm $INSTALL_DIR/bin


# Testing

30  vpr -h
31  yosys -h
32  qlfasm -h
```

33 nano ~/.bashrc
#paste the following 3 lines at the end of the file

export INSTALL_DIR=/home/"UserName"/symbiflow
export
PATH="$INSTALL_DIR/quicklogic-arch-defs/bin:$INSTALL_DIR/quicklogic-arch-defs/bin/python
3:$PATH"
export PATH=/home/"UserName"/symbiflow/bin:$PATH
#Ctrl+X save and exit. reboot for the settings to be updated.
#reboot

34 ql_symbiflow -h

#After login
35 cd $INSTALL_DIR/quicklogic-arch-defs/tests/counter_16bit

36 ql_symbiflow -compile -d ql-eos-s3 -P pd64 -v counter_16bit.v -t top -p chandalar.pcf
-dump binary
!! verify whether top.bin file generated or Not...!!

37 cd
38 mkdir fpga-examples
39 cd fpga-examples/
40
41 sudo apt install subversion
42 svn co https://github.com/gadepall/vaman/trunk/fpga/setup/codes/blink
43 cd blink/

compile Verilog code using the below line

44 ql_symbiflow -compile -d ql-eos-s3 -P PU64 -v helloworldfpga.v -t helloworldfpga -p
quickfeather.pcf -dump binary

Flash code on FPGA

Note: To flash bin file on to Vaman Press USR button Twice or (Press RST button Once followed by USR button) such that the on board Green LED should blink continuously.

45 python3
/home/"UserName"/pygmy-dev/pygmy-sdk/TinyFPGA-Programmer-Application/TinyFPGA-Progr
ammer-Application/tinyfpga-programmer-gui.py --port /dev/ttyACM0 --appfpga
helloworldfpga.bin --mode fpga --reset