

## Frontend Design

- It would be beneficial to come up with an architecture before moving forward to RTL. This can help avoid unnecessary iterations.
- Write synthesizable code and avoid hanging statements such as if-without-else. Multiple tutorials are available on what is synthesizable and what is not. If you are unsure where to start, we suggest going through [this video](#) before starting with code.
- If you are unsure on how to pipeline your design, since the core of the design is matrix multiplication, we suggest multiplying two 3x3 matrices by hand and finding patterns of operations that can be done in parallel.
- Reading through the testbench may help understand the inputs and outputs to the module better.

## Physical Design

General:

- Innovus sometimes throws a warning about M10 pitch, which can be ignored.

## Power Analysis

- VCD not generated/ unable to read
  - VCD file dumped will be incomplete if “No” is selected on the “Do you want to finish?” dialog in Modelsim. Click “Yes” to generate the file for power analysis.
- Performing power analysis
  - Instructions on how to do power analysis in Innovus is covered in the document `Innovus_power_analysis.pdf`.