

Problem 1: The solution to Homework 4, <http://www.ece.lsu.edu/koppel/v/2017/hw04-sol.v.html>, includes two modules, `maxrun` and `maxrun_opt`.

(a) Show the hardware inferred for `maxrun`.

(b) Show the hardware inferred for `maxrun_opt`.

Problem 2: Compute the critical path for the `maxrun` and `maxrun_opt` modules using the simple model. The launch points (path starts) are at module inputs and register outputs, and the capture points (path ends) are at module outputs and register inputs. Note that with these definitions the critical path does not include the register itself. Show the critical path in terms of w , the number of bits in the `len` output and c the number of bits in a character.