



Hazards

EX hazard	<p>If (EX/MEM.RegWrite and (EX/MEM.RegisterRd ≠ 0) and (EX/MEM.RegisterRd = ID/EX.RegisterRs)) then ForwardA = 10</p> <p>If (EX/MEM.RegWrite and (EX/MEM.RegisterRd ≠ 0) and (EX/MEM.RegisterRd = ID/EX.RegisterRt)) then ForwardB = 10</p>
MEM hazard	<p>If (MEM/WB.RegWrite and (MEM/WB.RegisterRd ≠ 0) and (MEM/WB.RegisterRd = ID/EX.RegisterRs) and (EX/MEM.RegisterRd ≠ ID/EX.RegisterRs)) then ForwardA = 01</p> <p>If (MEM/WB.RegWrite and (MEM/WB.RegisterRd ≠ 0) and (MEM/WB.RegisterRd = ID/EX.RegisterRt) and (EX/MEM.RegisterRd ≠ ID/EX.RegisterRt)) then ForwardB = 01</p>
Load hazard	<p>If (ID/EX.MemRead and ((ID/EX.RegisterRt = IF/ID.RegisterRs) or (ID/EX.RegisterRt = IF/ID.RegisterRt))) then <i>stall the pipeline</i></p>
Branch hazard	<p>If ((IF/ID.opcode = beq) and (FastComparator = 1)) then <i>stall the pipeline</i></p>