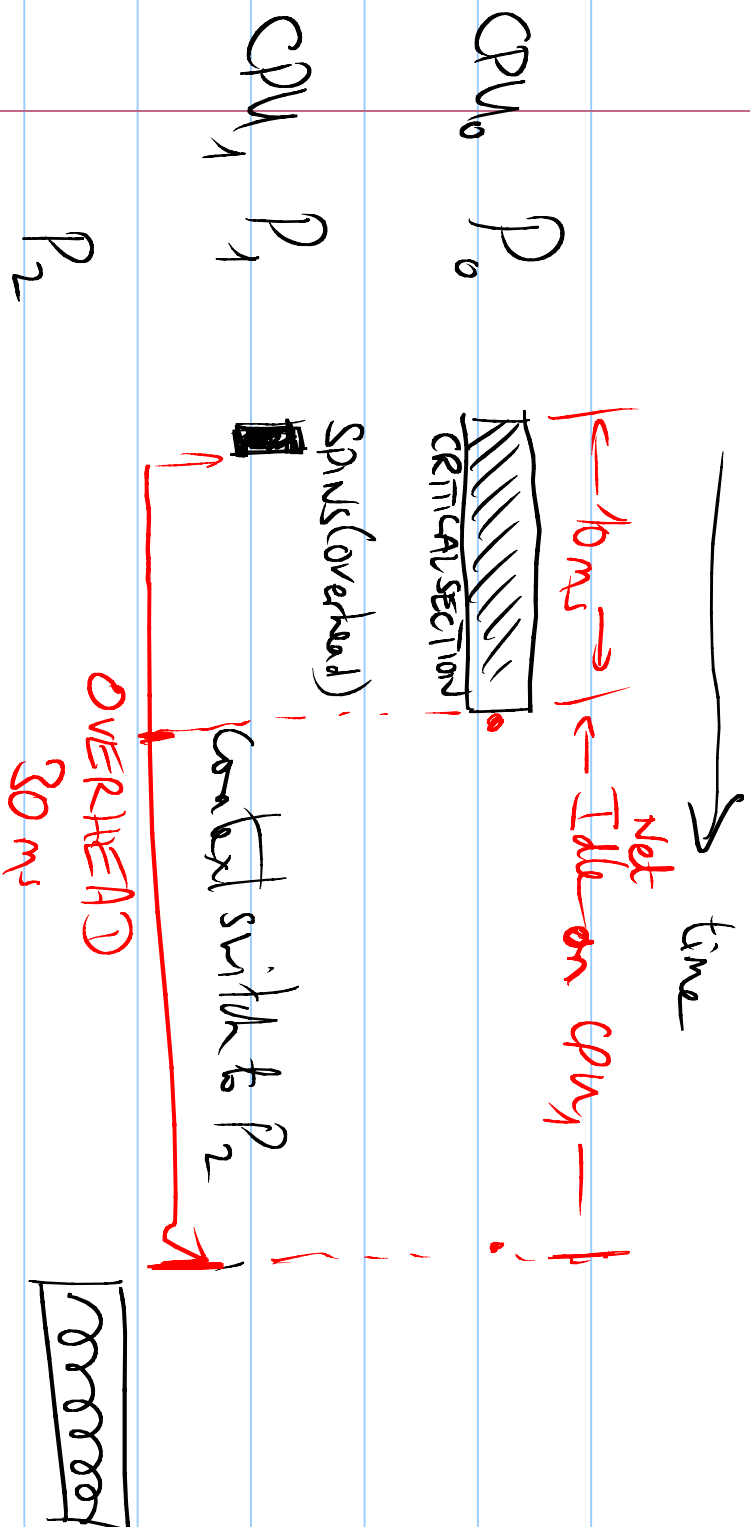


Spin locks

- Spinlocks are useful in multiprocessor systems: suppose process, P_0 has the lock and is executing on one processor, then process, P_1 can spin on another processor, waiting for the lock, while P_0 continues to execute.
- Spinlocks are advantageous in situations where context switching to another READY process, P_2 (say), would take considerable time, whereas the spinlock of P_1 would only occupy the processor for a relatively short time
- i.e. if locks are expected to be held for short times, allow spinlocks, and therefore avoid having to make time-consuming context-switches

See diagrams on next page

FORBID SPINLOCKS:



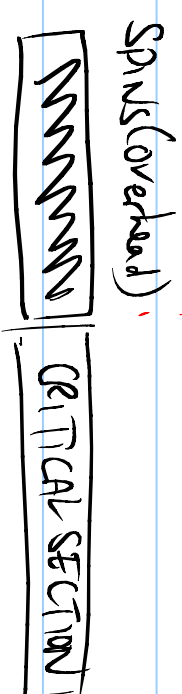
Allow spinlocks:

→ time

CPU₀: P₀



CPU₁: P₁



overhead
in CPU₁ = 10ms