while (lock != 0) {
    lock = 0;
}

lock = 1;

Busy wait

NO GOOD

on multicore systems

on single core system if interrupts are not disabled

because its compiled to a non-atomic seq of instructions

other thread might interleave!

while (lock != 0) {
    yield();
    schedule();
    lock = 1;
}

voluntarily gives other threads a chance - still subject to race failures