

Homework 6

1. Design a counting system that keeps track of how many cars at any given time are in a 200 spot parking garage. The garage has 1 entrance and 1 exit and is controlled by an automated ticket kiosk on the entrance and a payment kiosk on the exit. Both entrance and exit gates send a 1ms positive pulse with 0V and 5V logic levels which you can use to add and subtract cars from the total count. Assume that the 1ms pulses from the entrance do not overlap with the pulses from the payment kiosk. Assume you have 0 cars initially. Multiple 74HC193's can be used to solve this problem. Draw a complete circuit and consider all pins on the IC you use.