

CS 537: Intro to Operating Systems (Summer 2017)

Worksheet 7 - Hardware Locks

July 19th, 2017 (Wednesday)

Assume we have a new instruction called the **LoadAndStoreZero (LASZ)**, and it does the following atomically (here is C pseudo-code):

```
int LoadAndStoreZero(int *addr) {
    int old = *addr;
    *addr = 0;
    return old;
}
```

Build a working spin lock using the new instruction **LoadAndStoreZero (LASZ)**.

NOTE: For full points, your code should adhere to the C syntax.

```
typedef struct __lock_t {

} lock_t;

void init(lock_t *lock) {

}

void acquire(lock_t *lock) {

}

void release(lock_t *lock) {

}
```