1. Write a C program for RIMS that sets B2 = 1 whenever the numbers of 1s on A2, A1, and A0 is odd (i.e., when A2A1A0 are 001, 010, 100, or 111). Hint: Use logical OR (||) in addition to logical AND.

```c
#include "RIMS.h"

void main() {
        while (1) {
                B2 =    (!A2 && !A1 && A0) ||
                        (!A2 && A1 && !A0) ||
                        (A2 && !A1 && !A0) ||
                        (A2 && A1 && A0);
        }
}
```