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#include <string.h>
#include <stdint.h>
#include <stdio.h>

void decimal_to_morse(uint8_t dec, uint8_t morse_out[])
{
    uint8_t morse_lookup[10][5] = {
        {1, 1, 1, 1, 1}, //0
        {0, 1, 1, 1, 1}, //1
        {0, 0, 1, 1, 1}, //2
        {0, 0, 0, 1, 1}, //3
        {0, 0, 0, 0, 1}, //4
        {0, 0, 0, 0, 0}, //5
        {1, 0, 0, 0, 0}, //6
        {1, 1, 0, 0, 0}, //7
        {1, 1, 1, 0, 0}, //8
        {1, 1, 1, 1, 0}  //9
    };

    memcpy(morse_out, morse_lookup[dec], 5);
}

int main(void)
{
    uint8_t morse_out[5];
    int32_t i, j;

    for (i = 0; i <= 9; i++) {
        decimal_to_morse(i, morse_out);

        printf("%d -> ", i);
        for (j = 0; j < 5; j++) printf("%d ", morse_out[j]);
        printf("\n");
    }

    return 0;
}
```