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// lift.cpp: Source file for utilities relating to the lift
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//
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#include "../include/lift.hpp"

namespace lift {
    side_t left;
    side_t right;
    sensors::pot_t* sensor = &sensors::lift;

    void side_t::set(int power) {
        side_t::topM.set(power);
        side_t::midM.set(power);
        side_t::lowM.set(power);
    }

    void init(void) {
        left.topM = motors::init(2, 1, .5, .8);
        left.midM = motors::init(3, -1, .5, .8);
        left.lowM = motors::init(4, 1, .5, .8);
        right.topM = motors::init(7, -1, .5, .8);
        right.midM = motors::init(8, 1, .5, .8);
        right.lowM = motors::init(9, -1, .5, .8);
        left.sensor = &sensors::lift;
        right.sensor = &sensors::lift;
    }

    void set(int power) {
        left.set(power);
        right.set(power);
    }

    void lock(void) {

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    set(lockN);
}

void to(position pos, int int_pos, int tolerance) {
    if (int_pos == -1)
        int_pos = pos;
    do {
        set((int_pos > sensor->value() + tolerance ||
            int_pos < sensor->value() - tolerance)
            ? (sensor->value() - int_pos) * 1.5
            : (sensor->value() - int_pos));
        delay(15);
    } while (int_pos > sensor->value() + tolerance ||
        int_pos < sensor->value() - tolerance);
    lock();
}

void control(void) {
    int power = (joystick::digital(5, joystick::Up) * 127) +
        (joystick::digital(5, joystick::Down) * 127);
    power = (power == 0 && sensor->value() > threshold)
        ? lockN
        : ((sensor->value() < threshold) ? 0 : power);
    set(power);
}
} // namespace lift

```