```c
/**
 * @file opcontrol.c
 * @brief Controls what happens in operator control
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 *
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 */

#include <string.h>
#include "../include/robot.h"

#define MOGO_HOLD 300

extern bool isAuto;

int digital(unsigned char joyNum,
            unsigned char channel,
            unsigned char b1,
            unsigned char b2) {
    return joystickGetDigital(joyNum, channel, b2) * -1 +
           joystickGetDigital(joyNum, channel, b1) * 1;
} /* digital */

void moveDrive();
void moveMogo();
void skillsMogo();
void moveIntake();
void moveLift();
void manipPID();
void moveManip();

void autonLeft22();
void autonLeft22T();

void operatorControl() {
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#ifdef DEBUG_MODE
        printf("Starting Driver Control...\n");
#endif
reset();
update();
isAuto = false;

manipSettings.target = manip.sensor->value;
liftSettings.target   = lift.sensor->value;

/*
 *   if (liftLimit[0].value) {
 *       liftSettings.target = ARM_QUARTER;
 *       PID(&liftSettings);
 *   }
 */

bool isSkills = strstr(autons[selectedAuton].name, "skills");

while (true) {
        if (joystickGetDigital(1, 7, JOY_LEFT) &&
            joystickGetDigital(2, 7, JOY_LEFT)) {
                exit(0);
        }

        if (isSkills) {
                // skillsMogo();
                if (joystickGetDigital(2, 7, JOY_DOWN)) {
                        reset();
                        sensorReset(drive[0].sensor);
                        sensorReset(drive[1].sensor);
                        sensorReset(lift.sensor);
                        sensorReset(mogo.sensor);
                        sensorReset(&gyro);
                        autonLeft22();
                }
        }

        moveDrive();
        moveMogo();
        moveIntake();
        moveLift();
        manipPID();
        update();

        delay(20);
```

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                }
} /* operatorControl */

void moveDrive() {
        drive[0].power = deadBand(joystickGetAnalog(1, 3), 10) +
                         127 * digital(1, 7, JOY_UP, JOY_DOWN) +
                         127 * digital(1, 7, JOY_RIGHT, JOY_LEFT);
        drive[1].power = deadBand(joystickGetAnalog(1, 2), 10) +
                         127 * digital(1, 8, JOY_UP, JOY_DOWN) +
                         127 * digital(1, 8, JOY_LEFT, JOY_RIGHT);
} /* moveDrive */

void moveMogo() {
        int power = 127 * digital(1, 6, JOY_UP, JOY_DOWN);

        if (((mogo.power == 127) || (mogo.power == 9)) && !power)
                power = 9; mogo.power = power;
} /* moveMogo */

void skillsMogo() {
        if ((mogo.sensor->value <= MOGO_HOLD) &&
            !joystickGetDigital(1, 5, JOY_DOWN) &&
            !joystickGetDigital(2, 7, JOY_UP)) {
                mogo.power = clipNum(mogo.power,
                                     127,
                                     (MOGO_HOLD - mogo.sensor->value) * .9 + 13);
        }
} /* skillsMogo */

void moveLift() {
        static unsigned long lastPress;

        if (digital(2, 6, JOY_DOWN, JOY_UP) || (millis() - lastPress < 150)) {
                lift.power = 127 * digital(2, 6, JOY_UP, JOY_DOWN);

                if (lift.power) {
                        lastPress = millis();
                }

                if (liftLimit[0].value) {
                        sensorReset(lift.sensor);
                        lift.power = clipNum(lift.power, 0, -127);
                } else if (liftLimit[1].value) {
                        lift.sensor->zero = lift.sensor->value - 1000;
                        lift.power        = clipNum(lift.power, 127, 0);
                }
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                liftSettings.target = lift.sensor->value;
        } else if (liftLimit[0].value) {
                sensorReset(lift.sensor);
                liftSettings.target = 0;
                lift.power          = 0;
        } else if (liftLimit[1].value) {
                lift.sensor->zero   = lift.sensor->value - 1000;
                liftSettings.target = 1000;
                lift.power          = 0;
        } else {
                PID(&liftSettings);
        }
} /* moveLift */

void moveManip() {
        manip.power = 127 * digital(2, 5, JOY_UP, JOY_DOWN);
}

void moveIntake() {
        intake.power = .75f * (float)(joystickGetAnalog(2, 4) +

} /* moveIntake */

void manipPID() {
        static unsigned long lastPress;
        static int  power;

        if (joystickGetDigital(2, 7, JOY_UP))
                manipSettings.target = MANIP_PLACE;
        else if (joystickGetDigital(2, 7, JOY_RIGHT))
                manipSettings.target = MANIP_HOVER;
        else if (joystickGetDigital(2, 7, JOY_DOWN))
                manipSettings.target = MANIP_INTAKE;

        power = 127 * digital(2, 5, JOY_UP, JOY_DOWN);

        if (power) {
                manip.power          = power;
                manipSettings.target = manip.sensor->averageVal;
                lastPress            = millis();
        } else if (millis() - lastPress < 190) {
                manip.power = 0;
        } else {
                PID(&manipSettings);
        }
} /* manipPID */
```

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void autonLeft22T(void *none) {
        autonLeft22();
        taskDelete(NULL);
} /* autonLeft22T */
```