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/**
 * @file autoLeft.c
 * @brief Left side autonomous routines
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 *
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 */

#include "../include/auto.h"

void autonLeft12() {
    getMogo(); // Get the mobile goal
    TaskHandle armPIDHandle = GO(armPID, NULL);

    turnTo(-6, 500); // Align to a left tilt
    driveSettings[1].max -= 40; // Limit right side speed
    GO(placeConeT, NULL);
    driveToPosition(220, 650, 2400); // Back up
    driveSettings[1].max += 40; // Correct speed
    turnTo(-165, 2000); // Turn around
    delay(400);

    // Reset drive encoders & gyro
    sensorReset(drive[0].sensor);
    sensorReset(drive[1].sensor);
    sensorReset(&gyro);

    driveToPositionAngle(1000, 900, 13, 1850); // Drive arc 13 degrees clockwise
    armToPosition(ARM_QUARTER, 400);
    mogoP(MOGO_DOWN);

    driveSet(-127, -127); // Back up the drive
    delay(130);
    mogoP(MOGO_DOWN - 300); // Bring the mobile goal up a bit
    delay(250);
}

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        driveSet(0, 0);                                // Stop the drive

        taskDelete(armPIDHandle);
    } /* autonLeft12 */

    void left22(bool cones) {
        getMogo(); // Get the mobile goal
        GO(placeConeT, NULL); // Place cone

        turnTo(-1, 550);
        driveToPosition(1650, 1650, 3500);
        delay(1500);
        turnTo(-17, 1850); // Align to a left tilt of 12 degrees

        // driveSettings[1].max -= 40;          // Limit right side speed
        // driveToPosition(-485, -210, 5500); // Back up
        driveToPosition(-850, -850, 5500);      // Back up
        // driveSettings[1].max += 40;          // Correct speed
        GO(armPID, NULL);
        turnTo(-144, 2500); // Turn around

        // Reset drive encoders & gyro
        sensorReset(drive[0].sensor);
        sensorReset(drive[1].sensor);
        sensorReset(&gyro);

        driveSet(127, 127);
        delay(200);

        /*
        mogo.power = 127;
        mogo.child->power = 127;
        motorSet(mogo.port, 127 * mogo.isInverted);
        motorSet(mogo.child->port, 127 * mogo.child->isInverted);

        driveSet(70, 70);
        delay(250);
        mutexGive(mogo._mutex);
        */

        mogo.power = 70;
        motorUpdate(&mogo);
        // TaskHandle mogoHandle = GO(mogoPT, MOGO_MID + 125);
        // driveToPositionAngle(1525, 1425, 13, 1675); // Drive arc 13 degrees clockwise
        driveToPositionAngle(1525, 1425, 13, 1675); // Drive arc 13 degrees clockwise
    }

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// if (taskGetState(mogoHandle))
//     taskDelete(mogoHandle);

driveSet(-10, -10);
// mogo.power = 127;
// motorUpdate(&mogo);

delay(350);
sensorReset(&gyro);

mogo.power = 127;
motorUpdate(&mogo);
driveSet(-127, -127);

delay(150);

// if (taskGetState(mogoHandle))
//     taskDelete(mogoHandle);
TaskHandle mogoHandle = GO(mogoPT, MOGO_MID);

/*
mutexGive(mogo._mutex);
while (!mutexTake(mogo._mutex, 1))
    mutexGive(mogo._mutex);

mogo.power = 127;
mogo.child->power = 127;
motorSet(mogo.port, 127 * mogo.isInverted);
motorSet(mogo.child->port, 127 * mogo.child->isInverted);

driveSet(64, 64);
delay(200);
driveSet(-80, -80);

mogo.power = 0;
mogo.child->power = 0;
motorSet(mogo.port, 0);
motorSet(mogo.child->port, 0);

delay(150);
mutexGive(mogo._mutex);

mogoHandle = GO(mogoPT, MOGO_MID - 100);
// */

driveToPosition(200, 200, 2495);

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        while (taskGetState(mogoHandle)) {
            delay(10);
        }

        armSettings.target = arm.sensor->averageVal; // Reset the arm position to it's
                                                    // current position
    } /* left22 */

    void autonLeft22() {
        left22(false);
    }

    void autonLeft28() {
        left22(true);
    }

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