```
/**
 * Ofile autoSkills.c
 * @brief Programming skills
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#include "../include/auto.h"
void autonLeft22();
void liftPID(void *none);
void autonSkills() {
       // Get the mobile goal using the left red 22 point auton routine
       autonLeft22();
       resetDrive();
       driveToPosition(-200, -200, 750);
                           // TURN AROUND,
       turnTo(136, 2500);
       GO(mogoPT, MOGO_DOWN); // DROP A MOGO INTAKE;
       delay(350);
       // Reset sensors
       resetDrive();
       driveToPositionAngle(685, 675, 135, 1550);
       sensorRefresh(sonic);
        #ifdef DEBUG_MODE
               printf("\n\n\d\n\n", sonic->value);
        #endif
        turnTo(203, 2500); // TURN AROUND,
```

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// Reset sensors
resetDrive();
driveToPositionAngle(1650, 1650, 206, 3200);
// Mogo intake up
mogoP(MOGO_UP + 100);
turnTo(380, 2900); // TUUUURN AROUUUND
// Reset sensors
resetDrive();
driveToPositionAngle(1300, 1400, 373, 1875);
// Bring mogo intake to middle
TaskHandle mogoHandle = GO(mogoPT, MOGO_MID);
driveToPositionAngle(2375, 2475, 371, 2750);
if (taskGetState(mogoHandle))
       taskDelete(mogoHandle);
mogoP(MOGO_DOWN);
driveSet(-64, -64);
delay(150);
GO(mogoPT, MOGO_MID - 100);
delay(150);
driveSet(70, 70);
delay(200);
driveSet(28, 28);
delay(300);
driveSet(10, 10);
delay(125);
sensorReset(&gyro);
static const float driveChange = .76;
driveSettings[0].kP *= driveChange;
driveSettings[1].kP *= driveChange;
driveToPosition(2325, 2325, 1800);
driveSettings[0].kP /= driveChange;
driveSettings[1].kP /= driveChange;
turnTo(-104, 3400);
```

```
sensorRefresh(sonic);
#ifdef DEBUG_MODE
        printf("\n\n'', sonic->value);
#endif
driveSet(44, 44);
int sonicGoal = 43; // 62;
do {
        sensorRefresh(sonic);
        info();
        delay(20);
} while (sonic->value == 0 || sonic->value > sonicGoal);
driveSet(-35, -35);
delay(175);
driveSet(0, 0);
turnTo(-201, 2900); // TURN AROUND,
// Reset sensors
resetDrive();
mogoHandle = GO(mogoPT, MOGO_DOWN);
delay(300);
driveToPositionAngle(1430, 1430, -205, 2600);
// Mogo intake up
mogoP(MOGO_UP);
driveToPositionAngle(750, 750, -204, 1200);
turnTo(-362, 2000); // TUUUURN AROUUUND
// Reset sensors
resetDrive();
driveToPositionAngle(900, 800, -354, 1876);
// Bring mogo intake to middle
mogoHandle = GO(mogoPT, MOGO_MID);
driveToPositionAngle(1325, 1225, -343, 2200);
driveSet(17, 17);
delay(250);
if (taskGetState(mogoHandle))
        taskDelete(mogoHandle); mogoP(MOGO_DOWN);
driveSet(10, 10);
delay(250);
```

```
// Reset drive and gyro sensors
resetDrive();
sensorReset(&gyro);
driveSet(-64, -64);
delay(250);
mogoHandle = GO(mogoPT, MOGO_MID);
// Back up a small amount
driveToPosition(-450, -450, 750);
// Turn around to aim for the red mogo across the field
turnTo(175, 3000);
resetDrive();
// Drive across the field
driveToPositionAngle(600, 600, 176, 1200);
// Mogo intake down to pick it up
mogoHandle = GO(mogoPT, MOGO_DOWN);
driveToPositionAngle(3300, 3200, 174, 3900);
mogoHandle = GO(mogoPT, MOGO_MID - 200);
driveToPosition(3700, 3600, 1200);
turnTo(173, 600);
resetDrive();
driveToPosition(100, 500, 1000);
driveToPosition(830, 1180, 800);
driveToPosition(1380, 1280, 1000);
driveToPositionAngle(1600, 1500, 185, 1700);
mogoHandle = GO(mogoPT, MOGO_MID + 125);
driveSet(127, 127);
delay(450);
// Reset drive encoders & gyro
// resetDrive();
if (taskGetState(mogoHandle))
       taskDelete(mogoHandle);
mogo.power = 127;
motorUpdate(&mogo);
driveSet(64, 64);
delay(175);
```

```
sensorReset(&gyro);
mogo.power = 30;
motorUpdate(&mogo);
driveSet(-127, -127);
delay(125);
if (taskGetState(mogoHandle))
       taskDelete(mogoHandle); mogoHandle = GO(mogoPT, MOGO_MID);
driveToPosition(1100, 1000, 2095);
driveSet(70, 70);
delay(250);
driveSet(28, 28);
delay(300);
driveSet(10, 10);
delay(150);
sensorReset(&gyro);
resetDrive();
// driveSettings[0].kP *= driveChange;
// driveSettings[1].kP *= driveChange;
driveToPosition(-100, -100, 750);
// driveSettings[0].kP /= driveChange;
// driveSettings[1].kP /= driveChange;
turnTo(-102, 3400);
sensorRefresh(sonic);
#ifdef DEBUG_MODE
       printf("\n\n\d\n\n", sonic->value);
#endif
driveSet(44, 44);
sonicGoal = 84;
do {
       sensorRefresh(sonic);
       info();
       delay(20);
} while (sonic->value == 0 || sonic->value > sonicGoal);
driveSet(-35, -35);
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```
delay(175);
       driveSet(0, 0);
       turnTo(-216, 2900); // TURN AROUND,
       // Reset sensors
       resetDrive();
       mogoHandle = GO(mogoPT, MOGO_DOWN);
       delay(300);
       driveToPositionAngle(1430, 1430, -220, 2600);
       // Mogo intake up
       mogoP(MOGO_UP);
       driveToPositionAngle(750, 750, -219, 1200);
       turnTo(-355, 2000); // TUUUURN AROUUUND
       // Reset sensors
       resetDrive();
       driveToPositionAngle(900, 800, -347, 1876);
       // Bring mogo intake to middle
       mogoHandle = GO(mogoPT, MOGO_MID);
       driveToPositionAngle(1325, 1225, -336, 2200);
       // Reset sensors
       resetDrive();
       if (taskGetState(mogoHandle))
              taskDelete(mogoHandle); mogoP(MOGO_DOWN);
       driveSet(17, 17);
       delay(250);
       resetDrive();
       sensorReset(&gyro);
       driveSet(-64, -64);
       delay(250);
       mogoHandle = GO(mogoPT, MOGO_MID);
       // Back up a small amount
       driveToPosition(-450, -450, 750);
       } /* autonSkills */
```