#include "WPILib.h"

class Robot: public IterativeRobot

{

public:

Joystick \*controller2, \*controller1;

CANTalon \*driveTrainR1, \*driveTrainR2, \*driveTrainR3, \*driveTrainL1, \*driveTrainL2, \*driveTrainL3;

CANTalon \*ArmLift2, \*ArmLift1 , \*RExt1, \*RExt2,\*finger, \*LExt2;

Compressor \*compressor;

DoubleSolenoid \*armPiston, \*MPArm;

int auton = 0;

int autonMax = 5;

Robot()

{

compressor = new Compressor(0);

//controls

controller2 = new Joystick(0);

controller1 = new Joystick(1);

//Right Drive Train

driveTrainR1 = new CANTalon(1);

driveTrainR2 = new CANTalon(2);

driveTrainR3 = new CANTalon(3);

//Left Drive Train

driveTrainL1 = new CANTalon(4);

driveTrainL2 = new CANTalon(5);

driveTrainL3 = new CANTalon(6);

finger = new CANTalon(7);

RExt2 = new CANTalon(8);

RExt1 = new CANTalon(9);

LExt2 = new CANTalon(10);

//Finger

ArmLift1 = new CANTalon(11);

ArmLift2 = new CANTalon(12);

//pneumatics

armPiston = new DoubleSolenoid(2,3);

MPArm = new DoubleSolenoid(0,1);

}

void RobotInit() override

{

compressor->SetClosedLoopControl(true);

CameraServer::GetInstance()->SetQuality(50);

CameraServer::GetInstance()->StartAutomaticCapture("cam0");

}

void DisabledPeriodic()

{

SmartDashboard::PutString("DB/String 7","");

if(controller2->GetRawButton(6))

{

auton++;

Wait(.2);

if(auton == autonMax + 1)

{

auton = 0;

}

else if(auton == -1)

{

auton = 5;

}

}

else if(controller2->GetRawButton(5))

{

auton--;

Wait(.2);

if(auton == autonMax + 1)

{

auton = 0;

}

else if(auton == -1)

{

auton = 5;

}

}

auto str = std::to\_string(auton);

SmartDashboard::PutString("DB/String 5","Auton mode: " + str);

if(auton == 0)

{

SmartDashboard::PutString("DB/String 6","GOTTA GO FAST(drive forward 7 seconds .75 power");

}

else if(auton == 1)

{

SmartDashboard::PutString("DB/String 6","OPEN THE BLAST DOORS");

}

else if(auton == 2)

{

SmartDashboard::PutString("DB/String 6","RIP SALLY");

}

else if(auton == 3)

{

SmartDashboard::PutString("DB/String 6","ROCKWALL");

}

else if(auton == 4)

{

SmartDashboard::PutString("DB/String 6","LOWBAR");

}

else if (auton == 5)

{

}

}

void AutonomousInit()

{

if(auton == 0)

{

driveTrainR1->Set(.75);

driveTrainR2->Set(.75);

driveTrainR3->Set(.75);

driveTrainL1->Set(-.75);

driveTrainL2->Set(-.75);

driveTrainL3->Set(-.75);

Wait(7);

driveTrainR1->Set(0);

driveTrainR2->Set(0);

driveTrainR3->Set(0);

driveTrainL1->Set(0);

driveTrainL2->Set(0);

driveTrainL3->Set(0);

}

else if(auton == 1)

{

RExt1->Set(1);

RExt2->Set(1);

LExt2->Set(-1);

Wait(1);

RExt1->Set(0);

RExt2->Set(0);

LExt2->Set(0);

ArmLift1->Set(1);

ArmLift2->Set(-1);

Wait(1);

ArmLift1->Set(0);

ArmLift2->Set(0);

driveTrainR1->Set(1);

driveTrainR2->Set(1);

driveTrainR3->Set(1);

driveTrainR1->Set(-1);

driveTrainR2->Set(-1);

driveTrainR3->Set(-1);

Wait(1.5);

driveTrainR1->Set(0);

driveTrainR2->Set(0);

driveTrainR3->Set(0);

driveTrainR1->Set(0);

driveTrainR2->Set(0);

driveTrainR3->Set(0);

}

else if(auton == 2)

{

ArmLift1->Set(1);

ArmLift2->Set(-1);

Wait(1);

ArmLift1->Set(0);

ArmLift2->Set(0);

RExt1->Set(1);

RExt2->Set(1);

LExt2->Set(-1);

Wait(1);

RExt1->Set(0);

RExt2->Set(0);

LExt2->Set(0);

driveTrainR1->Set(1);

driveTrainR2->Set(1);

driveTrainR3->Set(1);

driveTrainR1->Set(1);

driveTrainR2->Set(1);

driveTrainR3->Set(1);

ArmLift1->Set(-1);

ArmLift1->Set(1);

Wait(1);

RExt1->Set(-1);

RExt2->Set(-1);

Wait(1);

RExt1->Set(0);

RExt2->Set(0);

LExt2->Set(0);

driveTrainR1->Set(1);

driveTrainR2->Set(1);

driveTrainR3->Set(1);

driveTrainL1->Set(1);

driveTrainL2->Set(1);

driveTrainL3->Set(1);

Wait(1);

driveTrainR1->Set(0);

driveTrainR2->Set(0);

driveTrainR3->Set(0);

driveTrainL1->Set(0);

driveTrainL2->Set(0);

driveTrainL3->Set(0);

}

else if(auton == 3)

{

ArmLift1->Set(.2);

Wait(2);

driveTrainR1->Set(.5);

driveTrainR2->Set(.5);

driveTrainR3->Set(.5);

driveTrainL1->Set(.5);

driveTrainL2->Set(.5);

driveTrainL3->Set(.5);

Wait(4);

driveTrainR1->Set(0);

driveTrainR2->Set(0);

driveTrainR3->Set(0);

driveTrainL1->Set(0);

driveTrainL2->Set(0);

driveTrainL3->Set(0);

}

else if(auton == 4)

{

ArmLift1->Set(.75);

ArmLift2->Set(-.75);

Wait(.1);

ArmLift1->Set(0);

ArmLift2->Set(0);

driveTrainL1->Set(.5);

driveTrainL2->Set(.5);

driveTrainL3->Set(.5);

driveTrainR1->Set(.5);

driveTrainR2->Set(.5);

driveTrainR3->Set(.5);

Wait(5);

driveTrainL1->Set(0);

driveTrainL2->Set(0);

driveTrainL3->Set(0);

driveTrainR1->Set(0);

driveTrainR2->Set(0);

driveTrainR3->Set(0);

}

else

{

}

}

void TeleopPeriodic()

{

TankDrive(controller1->GetRawAxis(5), controller1->GetRawAxis(1));

if(controller2->GetRawButton(1))

{

armPiston->Set(DoubleSolenoid::kForward);

}

else if(controller2->GetRawButton(4))

{

armPiston->Set(DoubleSolenoid::kReverse);

}

if(controller2 ->GetRawAxis(3) > .25)

{

finger->Set(1);

RExt1->Set(1);

}

else if(controller2 -> GetRawAxis(2) > .25)

{

finger->Set(-1);

RExt1->Set(-1);

}

else

{

finger->Set(0);

}

if (controller2->GetRawAxis(1) > 0.25)

{

MPArm->Set(DoubleSolenoid::kReverse);

}

else if (controller2->GetRawAxis(1) < -0.25)

{

MPArm->Set(DoubleSolenoid::kForward);

}

else

{

MPArm->Set(DoubleSolenoid::kOff);

}

}

void TankDrive(double left, double right)

{

driveTrainR1->Set(-left);

driveTrainR2->Set(-left);

driveTrainR3->Set(-left);

driveTrainL1->Set(right);

driveTrainL2->Set(right);

driveTrainL3->Set(right);

}

};

START\_ROBOT\_CLASS(Robot)