package org.firstinspires.ftc.teamcode;

import com.qualcomm.robotcore.eventloop.opmode.Autonomous;

import com.qualcomm.robotcore.hardware.DcMotor;

import com.qualcomm.robotcore.hardware.CRServo;

import com.qualcomm.robotcore.eventloop.opmode.LinearOpMode;

@Autonomous(name="FinalDepot", group="test")

public class NewAuto\_AirCrater extends LinearOpMode{

//declares all motors

private DcMotor leftFrontDrive, rightFrontDrive, leftBackDrive, rightBackDrive, rightLowerArm, leftLowerArm,

upperArmMotor;

//declares all servos

private CRServo leftIntakeServo, rightIntakeServo, hangingServo;

//CRServo values to operate

private double stop = .02;

private double back = -1.0;

private double forward = 1.0;

public void movePin(double power, int time){

hangingServo.setPower(power);

sleep(time);

hangingServo.setPower(stop);

sleep(10);

}

public void driveForward(double power, int time){

leftFrontDrive.setPower(-power);

rightFrontDrive.setPower(power);

leftBackDrive.setPower(-power);

rightBackDrive.setPower(power);

sleep(time);

leftFrontDrive.setPower(0);

rightFrontDrive.setPower(0);

leftBackDrive.setPower(0);

rightBackDrive.setPower(0);

sleep(10);

}

public void strafeRight(double power, int time){

rightFrontDrive.setPower(1.00);

rightBackDrive.setPower(-1.00);

leftFrontDrive.setPower(1.00);

leftBackDrive.setPower(-1.00);

sleep(time);

rightFrontDrive.setPower(0);

rightBackDrive.setPower(0);

leftFrontDrive.setPower(0);

leftBackDrive.setPower(0);

sleep(10);

}

public void strafeLeft(double power, int time){

rightFrontDrive.setPower(-1.00);

rightBackDrive.setPower(1.00);

leftFrontDrive.setPower(-1.00);

leftBackDrive.setPower(1.00);

sleep(time);

rightFrontDrive.setPower(0);

rightBackDrive.setPower(0);

leftFrontDrive.setPower(0);

leftBackDrive.setPower(0);

sleep(10);

}

public void turnLeft(double power, int time){

leftFrontDrive.setPower(power);

rightFrontDrive.setPower(power);

leftBackDrive.setPower(power);

rightBackDrive.setPower(power);

sleep(time);

leftFrontDrive.setPower(0);

rightFrontDrive.setPower(0);

leftBackDrive.setPower(0);

rightBackDrive.setPower(0);

sleep(10);

}

public void turnRight(double power, int time){

leftFrontDrive.setPower(-power);

rightFrontDrive.setPower(-power);

leftBackDrive.setPower(-power);

rightBackDrive.setPower(-power);

sleep(time);

leftFrontDrive.setPower(0);

rightFrontDrive.setPower(0);

leftBackDrive.setPower(0);

rightBackDrive.setPower(0);

sleep(10);

}

public void intakeSpin(double power, int time){

leftIntakeServo.setPower(power);

rightIntakeServo.setPower(-power);

sleep(time);

leftIntakeServo.setPower(stop);

rightIntakeServo.setPower(stop);

sleep(10);

}

public void armSpin(double power, int time){

leftLowerArm.setPower(power);

rightLowerArm.setPower(-power);

sleep(time);

leftLowerArm.setPower(0);

rightLowerArm.setPower(0);

sleep(10);

}

public void wristSpin(double power, int time){

upperArmMotor.setPower(power);

sleep(time);

upperArmMotor.setPower(0);

sleep(10);

}

// public void wristAndIntakeSpin(double power, int time){

// leftIntakeServo.setPower(power);

// rightIntakeServo.setPower(-power);

// upperArmMotor.setPower(power\*0.50);

// sleep(time);

// leftIntakeServo.setPower(0);

// rightIntakeServo.setPower(0);

// upperArmMotor.setPower(0);

// sleep(10);

// }

// public void driveAndIntakeSpin(double power, int time){

// leftIntakeServo.setPower(power);

// rightIntakeServo.setPower(-power);

// leftFrontDrive.setPower(power);

// rightFrontDrive.setPower(-power);

// leftBackDrive.setPower(power);

// rightBackDrive.setPower(-power);

// sleep(time);

// leftIntakeServo.setPower(0);

// rightIntakeServo.setPower(0);

// leftFrontDrive.setPower(0);

// rightFrontDrive.setPower(0);

// leftBackDrive.setPower(0);

// rightBackDrive.setPower(0);

// sleep(10);

// }

// public void movePin(double power, int time){

// hangingServo.setPower(power);

// sleep(time);

// hangingServo.setPower(stop);

// sleep(10);

// }

@Override

public void runOpMode() {

//initializes motors

leftFrontDrive = hardwareMap.get(DcMotor.class, "left\_front\_drive");

rightFrontDrive = hardwareMap.get(DcMotor.class, "right\_front\_drive");

leftBackDrive = hardwareMap.get(DcMotor.class, "left\_back\_drive");

rightBackDrive = hardwareMap.get(DcMotor.class,"right\_back\_drive");

rightLowerArm = hardwareMap.get(DcMotor.class,"right\_lower\_arm");

leftLowerArm = hardwareMap.get(DcMotor.class, "left\_lower\_arm" );

upperArmMotor = hardwareMap.get(DcMotor.class, "upper\_arm\_motor");

//resets encoders at zero

rightLowerArm.setMode(DcMotor.RunMode.STOP\_AND\_RESET\_ENCODER);

leftLowerArm.setMode(DcMotor.RunMode.STOP\_AND\_RESET\_ENCODER);

//starts encoders

rightLowerArm.setMode(DcMotor.RunMode.RUN\_USING\_ENCODERS);

leftLowerArm.setMode(DcMotor.RunMode.RUN\_USING\_ENCODERS);

//VEX 393 motors initialization (programmed as CRServo)

rightIntakeServo = hardwareMap.get(CRServo.class,"right\_intake\_servo");

leftIntakeServo = hardwareMap.get(CRServo.class,"left\_intake\_servo");

//rightIntakeServo = hardwareMap.get(Servo.class,"right\_intake\_servo");

//leftIntakeServo = hardwareMap.get(Servo.class,"left\_intake\_servo");

//iniializes CRServos

hangingServo = hardwareMap.get(CRServo.class,"hanging\_servo");

//initialize servos

//mineralServo = hardwareMap.get(Servo.class, "mineral\_servo");

//sets direction of motors

leftFrontDrive.setDirection(DcMotor.Direction.FORWARD);

rightFrontDrive.setDirection(DcMotor.Direction.FORWARD);//r

leftBackDrive.setDirection(DcMotor.Direction.FORWARD);

rightBackDrive.setDirection(DcMotor.Direction.FORWARD);///r

rightLowerArm.setDirection(DcMotor.Direction.REVERSE);

leftLowerArm.setDirection(DcMotor.Direction.FORWARD);

upperArmMotor.setDirection(DcMotor.Direction.FORWARD);

//set initial speeds of motor

leftFrontDrive.setPower(0.0);

leftBackDrive.setPower(0.0);

rightFrontDrive.setPower(0.0);

rightBackDrive.setPower(0.0);

rightLowerArm.setPower(0.0);

leftLowerArm.setPower(0.0);

//set inital speeds of all Continuous Rotation servos

hangingServo.setPower(stop);

//upperArmServo.setPower(stop);

//VEX motors

leftIntakeServo.setPower(0.0);

rightIntakeServo.setPower(0.0);

waitForStart();

armSpin(0.75, 600);

//armSpin(0.75, 300);

armSpin(-0.75, 1650);

driveForward(-1.00, 131);

movePin(1.00, 3001); // Pin OUT

// //Deliver the team marker

// driveForward(1.00, 1000);

// turnRight(1.00, 800);

// driveForward(1.00, 3000);

// turnLeft(1.00, 1300);

// driveForward(1.00, 1250);

// wristSpin(-0.50, 900);

// armSpin(0.75, 400);

driveForward(1.00, 600); //works

turnRight(1.00, 300);

armSpin(0.75, 450);

strafeLeft(1.00, 2000);

//spit out team marker?

intakeSpin(1.00, 1500);

//park in crater

driveForward(-1.00, 4500);

}

}