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/*
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*/
package org.firstinspires.ftc.teamcode;

import com.qualcomm.robotcore.eventloop.opmode.Autonomous;
import com.qualcomm.robotcore.eventloop.opmode.Disabled;
import com.qualcomm.robotcore.eventloop.opmode.LinearOpMode;
import com.qualcomm.robotcore.util.ElapsedTime;

import org.firstinspires.ftc.robotcontroller.external.samples.HardwarePushbot;

/**
 * This file illustrates the concept of driving a path based on time.
 * It uses the common Babybot hardware class to define the drive on the robot.
 * The code is structured as a LinearOpMode
 *
 * The desired path in this example is:
 * - Drive forward for 3 seconds
 * - Spin right for 1.3 seconds
 * - Drive Backwards for 1 Second
 * - Stop and close the claw.
 *
 * The code is written in a simple form with no optimizations.
 * However, there are several ways that this type of sequence could be streamlined,
 *
 * Use Android Studios to Copy this Class, and Paste it into your team's code folder with a new name.
 * Remove or comment out the @Disabled line to add this opmode to the Driver Station OpMode list
 */
@Autonomous(name="Babybot: Auto By Time", group="Abdul")
//@Disabled
public class BabybotAutoDriveByTime_Linear extends LinearOpMode {

    /* Declare OpMode members. */
    HardwareBabybot    robot    = new HardwareBabybot();    // Use a Babybot's hardware
    private ElapsedTime    runtime = new ElapsedTime();

    static final double    FORWARD_SPEED = 0.6;
    static final double    TURN_SPEED    = 0.5;

    @Override
    public void runOpMode() throws InterruptedException {

        /*
         * Initialize the drive system variables.

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    * The init() method of the hardware class does all the work here
    */
robot.init(hardwareMap);

// Send telemetry message to signify robot waiting;
telemetry.addData("Status", "Ready to run");    //
telemetry.update();

// Wait for the game to start (driver presses PLAY)
waitForStart();

// Step through each leg of the path, ensuring that the Auto mode has not been stopped along the way

// Step 1: Drive forward for 3 seconds
robot.leftMotor.setPower(FORWARD_SPEED);
robot.rightMotor.setPower(FORWARD_SPEED);
runtime.reset();
while (opModeIsActive() && (runtime.seconds() < 3.0)) {
    telemetry.addData("Path", "Leg 1: %2.5f S Elapsed", runtime.seconds());
    telemetry.update();
    idle();
}

// Step 2: Spin right for 1.3 seconds
robot.leftMotor.setPower(TURN_SPEED);
robot.rightMotor.setPower(-TURN_SPEED);
runtime.reset();
while (opModeIsActive() && (runtime.seconds() < 1.3)) {
    telemetry.addData("Path", "Leg 2: %2.5f S Elapsed", runtime.seconds());
    telemetry.update();
    idle();
}

// Step 3: Drive Backwards for 1 Second
robot.leftMotor.setPower(-FORWARD_SPEED);
robot.rightMotor.setPower(-FORWARD_SPEED);
runtime.reset();
while (opModeIsActive() && (runtime.seconds() < 1.0)) {
    telemetry.addData("Path", "Leg 3: %2.5f S Elapsed", runtime.seconds());
    telemetry.update();
    idle();
}

// Step 4: Stop and close the claw.
robot.leftMotor.setPower(0);
robot.rightMotor.setPower(0);
robot.claw.setPosition(1.0);
robot.arm.setPosition(0.0);

telemetry.addData("Path", "Complete");
telemetry.update();
sleep(1000);
idle();
}
}
}

```