#include <avr/wdt.h>

#include "DeviceDriverSet\_xxx0.h"

#include "ApplicationFunctionSet\_xxx0.cpp"

DeviceDriverSet\_Motor AppMotor;

Application\_xxx Application\_SmartRobotCarxxx0;

void moveForward(int speed, int duration) {

ApplicationFunctionSet\_SmartRobotCarMotionControl(1 /\*forward\*/, speed);

delay(duration);

ApplicationFunctionSet\_SmartRobotCarMotionControl(0 /\*stop\*/, 0);

}

void turnRight(int speed, int duration) {

ApplicationFunctionSet\_SmartRobotCarMotionControl(3 /\*right\*/, speed);

delay(duration);

ApplicationFunctionSet\_SmartRobotCarMotionControl(0 /\*stop\*/, 0);

}

void turnLeft(int speed, int duration) {

ApplicationFunctionSet\_SmartRobotCarMotionControl(2 /\*left\*/, speed);

delay(duration);

ApplicationFunctionSet\_SmartRobotCarMotionControl(0 /\*stop\*/, 0);

}

void setup() {

AppMotor.DeviceDriverSet\_Motor\_Init();

delay(2000);

int speed = 150; // Slower speed for more controlled movement

// Square Shape

moveForward(speed, 2000); // Move forward to the first side of the square

turnRight(speed, 500); // Adjust this value for a 90-degree turn

moveForward(speed, 1000); // Move to the second side of the square

turnRight(speed, 500); // Adjust this value for a 90-degree turn

moveForward(speed, 2000); // Move to the third side of the square

turnRight(speed, 500); // Adjust this value for a 90-degree turn

moveForward(speed, 1000); // Move to the fourth side of the square

turnRight(speed, 500); // Adjust this value for a 90-degree turn

// Adjust position for the diamond inside the square

moveForward(speed, 1000); // Move to the center of the square

turnRight(speed, 500); // Face the starting direction for the diamond

// Diamond Shape

moveForward(speed, 1000); // Move forward to the first point of the diamond

turnRight(speed, 350); // Adjust this value for a 45-degree turn

moveForward(speed, 1000); // Move to the second point of the diamond

turnRight(speed, 350); // Adjust this value for a 45-degree turn

moveForward(speed, 1000); // Move to the third point of the diamond

turnRight(speed, 350); // Adjust this value for a 45-degree turn

moveForward(speed, 1000); // Move to the fourth point of the diamond

turnRight(speed, 350); // Adjust this value for a 45-degree turn

}

void loop() {

// Stop the car after completing the path

ApplicationFunctionSet\_SmartRobotCarMotionControl(0 /\*stop\*/, 0);

}