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// AUTONOMOUS CODE FOR RED BOT - RED SQUARE
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double redAuton[] = {
    180, // ROBOT STARTS FACING 180°

    DRIVE,50,180,DISTANCE,0.1,1, // DRIVE WITHIN EXPANSION ZONE

    WRISTSEEK,-1000, // DEPLOY FLIPPER
    PAUSE,1.5, // PAUSE FOR DEPLOY
    FLIPSEEK,FLIP_POS1, // HOLD FLIPPER STILL
    WRISTSEEK,WRIST_FORWARD_POS, // LOWER FORKS
    PAUSE,0.5, // DEPLOY DONE

    DRIVE,-70,180,DISTANCE,0.6,1, // DRIVE TO LINE UP FOR CAP
    TURN,135,1, // AIM AT CAP
    TURN,135,2, // AIM AT CAP

    DRIVE,-50,135,DISTANCE,1,2, // DRIVE TO CAP 1
    WRISTSEEK,WRIST_VERTICAL_POS, // PICK IT UP
    PAUSE,1, // TIME TO PICK UP

    DRIVE,70,135,WHITE_R,2, // DRIVE TILL RIGHT SENSOR IS
    OVER_START_TILE // OVER START TILE
    TURN,180,2, // TURN FOR NEXT DRIVE
    DRIVE,70,180,BLACK_R,2, // DRIVE UNTIL OFF START TILE
    DRIVE,-90,180,DISTANCE,0.1,1, // DRIVE TO LINE UP
    TURN,90,2, // TURN TO LINE UP

    DRIVE,-90,90,0.1, // DRIVE AWAY FROM POLE
    TURN,90,2, // TURN TO LINE UP
    DRIVE,70,90,0.1, // DRIVE BACK TO WALL

    DRIVE,50,90,DISTANCE,0.4,2, // DRIVE TO WALL

    STACK_HIGH, // STACK CAP 1
    PAUSE,STACKED,10, // WAIT TILL STACKED

    TURN,90,2, // TURN STRAIGHT
    DRIVE,-90,90,DISTANCE,0.5,1, // DRIVE AWAY FROM POLE
    TURN,0,2, // TURN TO FACE FLAGS
    DRIVE,90,0,WHITE_L,2, // DRIVE ONTO TILE
    DRIVE,90,0,0.1, // MAKE SURE ON TILE
    DRIVE,90,0,BLACK_B,2, // DRIVE OFF TILE
    DRIVE,-90,0,0.1, // DRIVE TO BREAK
    DRIVE,-90,0,DISTANCE,1,2, // DRIVE TO LINE UP

    TURN,270,2, // TURN TO FACE CAP
    INTAKE_ON, // START INTAKE
    WRISTSEEK,WRIST_VERTICAL_POS, // STOP DEPLOY
    DRIVE,80,270,BLACK_B,1, // DRIVE OFF TILE
    DRIVE,80,270,DISTANCE,1.4,2, // DRIVE TO GET BALL
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DRIVE,-80,270,DISTANCE,0.125,2, // DRIVE BACK FROM CAP

TURN,345,2, // TURN TO FACE FLAGS
DRIVE,90,345,DISTANCE,0.65,2, // DRIVE TO FLAG DISTANCE
TURN,330,2, // TURN TO FACE FLAGS
TURN_AIM,BLUE_FLAG,CENTER,2, // AIM AT CENTRE BLUE FLAG

PAUSE,2, // PAUSE AFTER TURN
PAUSE,UNTIL,35, // WAIT AS LATE AS POSSIBLE
START_COAST, // SPINUP FLYWHEEL
TURN_AIM,BLUE_FLAG,CENTER,2, // AIM AT CENTRE BLUE FLAG
PAUSE,2, // PAUSE AFTER TURNING
PAUSE,UNTIL,41.25, // WAIT AS LATE AS POSSIBLE

FIRE_AIM,TOP, // SHOOT TOP FLAG
PAUSE,FIRED,FIRE_TRY_TIME, // WAIT TILL SHOT
PAUSE,0.1, // SHORT PAUSE
STOP_FIRE, // STOP FLYWHEEL

DRIVE,127,CDIR,DISTANCE, // CONTINUED ON NEXT LINE
MIDDLE_FLAG_DIST,2, // DRIVE TO MIDDLE FLAG DIST
FIRE_AIM,TOP, // SHOOT MIDDLE FLAG
PAUSE,FIRED,FIRE_TRY_TIME, // WAIT TILL SHOT
PAUSE,0.1, // SHORT PAUSE
STOP_FIRE, // STOP FLYWHEEL

INTAKE_OFF, // TURN INTAKE OFF
DRIVE,127,CDIR,0.5, // DRIVE TO TOGGLE BOTTOM FLAG
DRIVE,-127,0,0.5, // DRIVE AWAY FROM FLAG
INTAKE_ON, // TURN INTAKE BACK ON

END // END OF ROUTINE
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};
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