Quick Start Guide

S12VRP-DEMO

Highly Integrated Microcontroller Power Window Lift Relay-Based

EVB DEVELOPMENT PLATFORM

GET TO KNOW THE S12VRP-DEMO BOARD

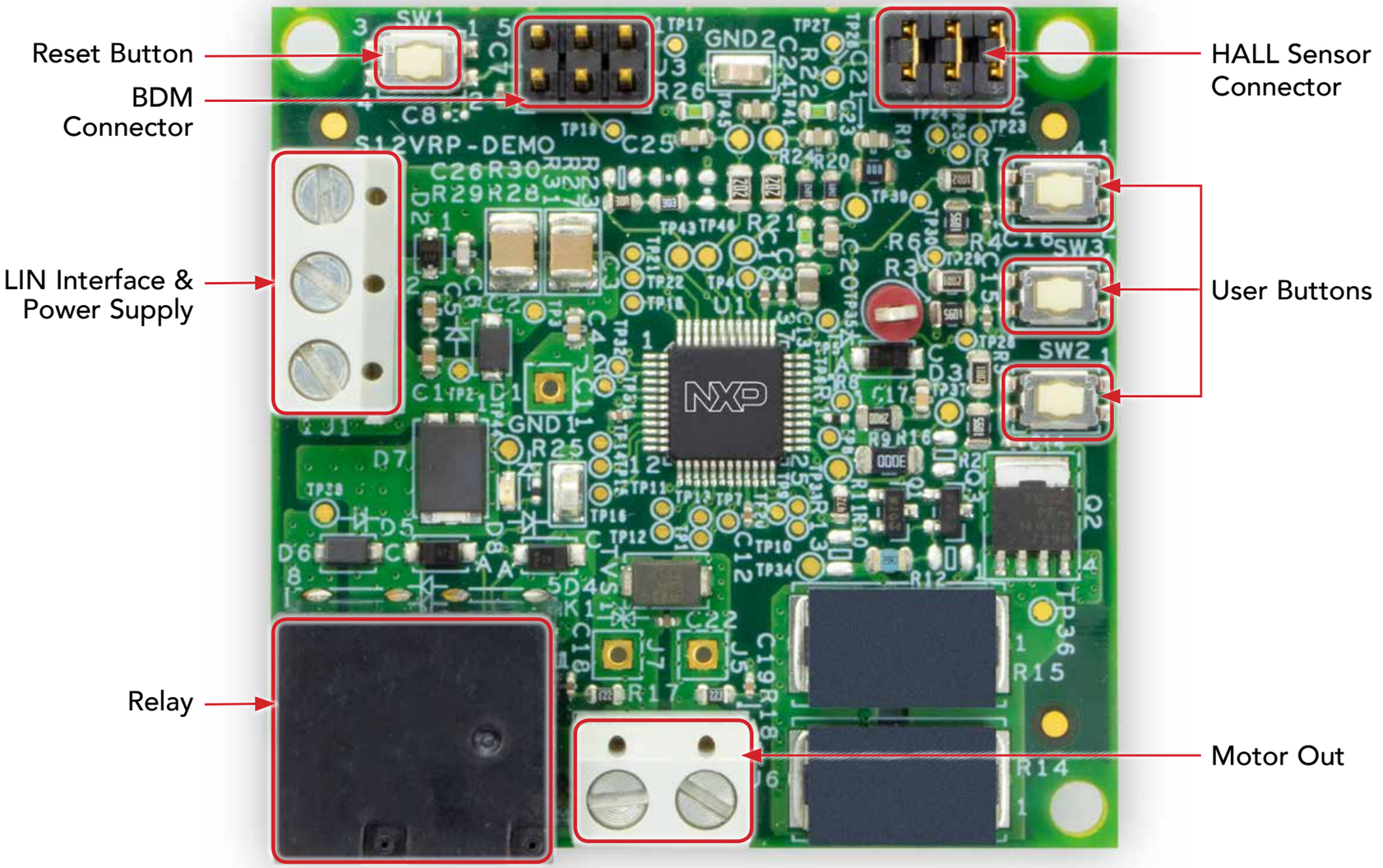


Figure 1: Front side of S12VR32EVB Board

INTRODUCTION TO THE S12VRP-DEMO BOARD

The S12VRP-DEMO features the S12VRP microcontroller, an automotive 16-bit MCU for motor control relay based applications. The S12VRP integrates an S12 CPU, a LIN physical interface, a 5V regulator system to supply the microcontroller, two Low-Side drivers to control the relay and an opamp for current sensing.

The S12VRP-DEMO is an ultra-low-cost development platform that includes a hall sensor interface, three switch buttons and a BDM connector.

SOFTWARE INSTALLATION INSTRUCTIONS

1 Install CodeWarrior 5.1 Development Studio

CodeWarrior is a complete integrated development environment (IDE) that provides a highly visual and automated framework.
Download the CW5.1v from **www.nxp.com/codewarrior**.

2 Open the Application Software

Open the file up-down-no-antipinch.mcp with CodeWarrior Development Studio for HCS12(X).

3 Connect the Board

Connect a 12 V automotive battery and a brushed DC motor to the board. For details refer to the next section, “Step By Step Board Connection.”

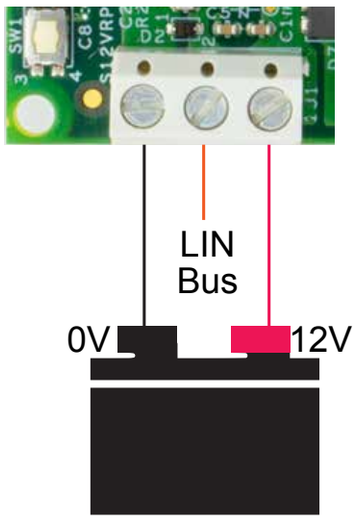
4 Download the software to the S12VRP MCU flash

Connect an HCS12(X) external debugger to the computer and then connect the debugger to J6. Follow the operating system messages to install the debugger drivers. Flash the application by pressing the debug button on CodeWarrior. Follow the debugger instructions to flash the MCU.

STEP-BY-STEP BOARD CONNECTION

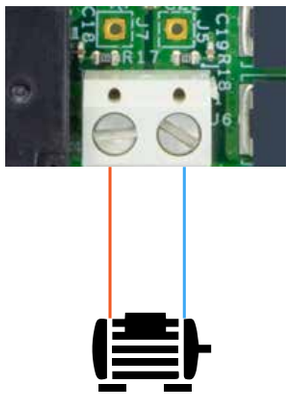
1. Connect the board

Supply your board with 12 V as is shown in the image:



2. Connect the motor

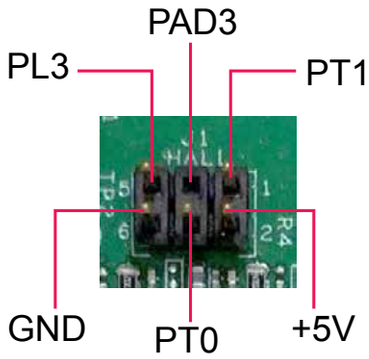
Connect your DC motor as is shown in the image.



V0	V1	Direction
12V	0V	UP
0V	12V	DOWN
0V	0V	OFF
12V	12V	INVALID

3. Connect an external HCS12(X) debugger

4. Hall Sensor Connector



HEADERS AND CONNECTORS

JUMPER	DESCRIPTION	
J4	HALL Sensor Connector	
J6	Pin 1	Motor1_Out
	Pin 2	Motor2_Out
J1	Pin 1	LIN
	Pin 2	GND
	Pin 3	V_{BAT}
J3	BDM Connector	

PUSH BUTTONS AND SWITCHES

HEADER/CONNECTOR	DESCRIPTION
SW1	Push button Reset
SW2	Push button connetect to a high voltaje input pin.
SW3	Push button connetect to a high voltaje input pin.
SW4	Push button connetect to a high voltaje input pin.

SUPPORT

Visit **www.nxp.com/support** for a list of phone numbers within your region.

WARRANTY

Visit **www.nxp.com/warranty** for complete warranty information.

Get Started

Download installation software and documentation at **www.nxp.com/S12VRP-DEMO**.

Automotive Community
https://community.nxp.com/community/s32

S12 MagniV Community
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