Run a Sample Program

Find the file **PONG.C**, which is in the Dynamic C **SAMPLES** f older. To run the program, open it with the **File** menu, compile it using the **Compile** menu, and then run it by selecting **Run** in the **Run** menu. The **STDIO** window will open on your PC and will display a small square bouncing around in a box.

Where Do I Go From Here?

If the sample program ran fine, you are now ready to go on to other sample programs and to develop your own applications. The source code for the sample programs is provided to allow you to modify them for your own use. The *RCM5700/6700 User's Manual* also provides complete hardware reference information for the RCM5700/6700, the Interface Board, the Prototyping Board, and the accessory boards in the Deluxe Development Kit. The *Dynamic C User's Manual* provides complete information about Dynamic C.

Troubleshooting

If you receive the message `Could Not Open Serial Port`, check that the COM port assigned to the USB cable was identified and set up in Dynamic C as described above.

If you receive the message `No Rabbit Processor Detected`, the USB cable may be connected to the wrong COM port, or the connection may be faulty. First, check both ends of the USB cable to ensure they are firmly plugged into the PC and the USB connector in the Interface Board. Ensure that the module is correctly installed in its connector on the Interface Board.

If Dynamic C appears to compile the BIOS successfully, but you then receive a communication error message when you compile and load a sample program, it is possible that your PC cannot handle the higher program-loading baud rate. Try changing the maximum download rate to a slower baud rate as follows.

- Locate the **Serial Options** dialog on the "Communications" tab in the Dynamic C **Options > Project Options** menu. Select a slower Max download baud rate.

If a program compiles and loads, but then loses target communication before you can begin debugging, it is possible that your PC cannot handle the default debugging baud rate. Try lowering the debugging baud rate as follows.

- Locate the **Serial Options** dialog on the "Communications" tab in the Dynamic C **Options > Project Options** menu. Choose a lower debug baud rate.

- Press **<Ctrl-Y>** to force Dynamic C to recompile the BIOS. You should receive a `Bios compiled successfully` message once these steps are completed successfully.

If there are any other problems:

- Use the Dynamic C Help menu to get further assistance with Dynamic C.
- Check the **Rabbit** Technical Bulletin Board and forums at www.digi.com/support/forum/rabbit and at www.digi.com/support/forum/.
- Use the Technical Support e-mail form at www.digi.com/support/.

NOTE: If you purchased your RCM5700/6700 Development Kit through a distributor or through a Rabbit partner, contact the distributor or partner first for technical support.

MiniCore RCM5700/6700

The RCM5700 and RCM6700 modules provide a compact module in a mini PCI Express form factor with integrated 10/100Base-T Ethernet functionality. These Getting Started instructions included with the Development Kit will help you get your MiniCore up and running so that you can run the sample programs to explore its capabilities and develop your own applications.

Development Kit Contents

For drivers, documentation, and development software and sample code, go to: www.digi.com/support/RabbitDynamicC .

The RCM5700 and RCM6700 Standard Development Kits contain the following items:

- RCM5700 module or RCM6700 module (depending on the kit).
- Interface Board with standoffs/connectors.
- Prototyping Board with standoffs/connectors.
- USB cable to program RCM5700/6700 via Interface Board.
- Registration card

Visit our online Rabbit store at www.digi.com/products/rabbit for the latest information on peripherals and accessories that are available for the RCM5700 and RCM6700 MiniCore modules.

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Hardware Connections

Step 1 — Prepare the Interface Board

Insert a short plastic standoff supplied from the Development Kit in one of the corner holes from the bottom of the Interface Board, then secure it with a long plastic standoff from above as shown in Figure 1. Repeat this step so that plastic standoffs/ connectors are in place at *all four* positions.
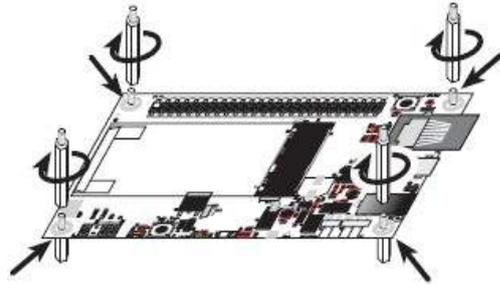
Step 2 — Install Module on Interface Board

Position the RCM5700/6700 module with the edge connectors facing the mini PCI Express socket J1A at an angle as shown in Figure 2 below. Insert the edge connectors into the mini PCI Express socket J1A, then press down on the opposite edge of the RCM5700/6700 module to snap it into place in holder J1B.
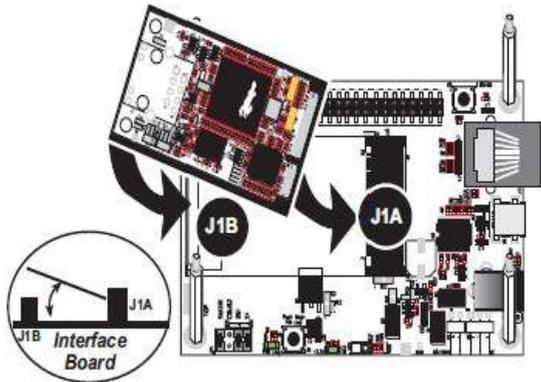
Figure 1. Insert Standoffs/Connectors

Figure 2. Install the RCM5700/6700 Module on the Interface Board

⚠ **CAUTION:** Remove power before attempting to insert or remove the RCM5700/6700 in the mini PCI Express socket.

Should you need to remove the RCM5700/6700 module, use two fingers to hold back the spring clip at J1B from the two RCM5700/6700 corners, lift up the edge of the RCM5700/6700 above J1B, then pull the RCM5700/6700 away to remove the edge connectors from the mini PCI Express socket.

Step 3 — Connect USB Cable

The USB cable connects the RCM5700/6700 to the PC running Dynamic C to download programs and to monitor the RCM5700/6700 module during debugging. It also supplies power to the Interface Board and the RCM5700/6700 via the USB interface.

Connect the USB cable between USB connector J5 on the Interface Board and your PC as shown in Figure 3. Note that the USB cable connectors are different at either end, so there is only one way to connect them between the PC and the Interface Board.
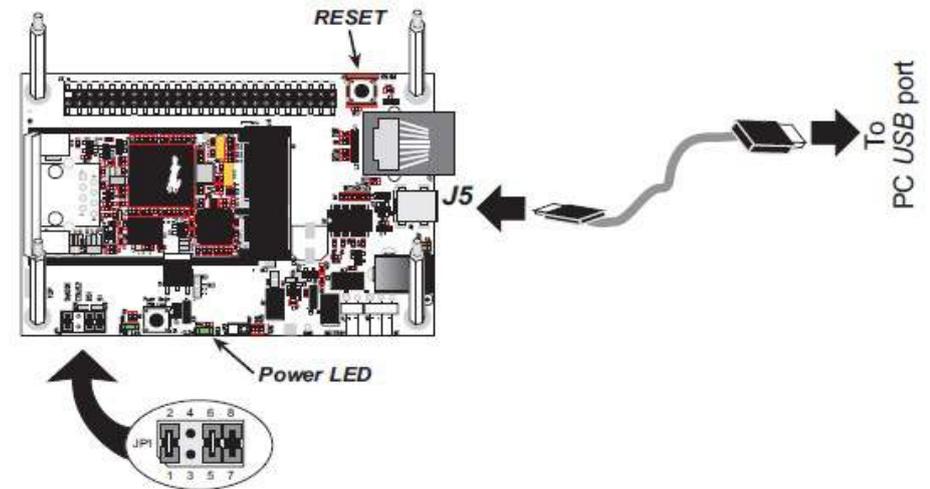
Figure 3. Connect USB Cable

Your PC should recognize the new USB hardware, and the LEDs next to the USB connector on the Interface Board will flash — if you get an error message, you will have to install USB drivers. Drivers for Windows XP are available in the Dynamic C `Drivers\Rabbit USB Programming Cable\WinXP_2K` folder — double-click `DPInst.exe` to install the USB drivers. Drivers for other operating systems are available online at www.ftdichip.com/Drivers/VCP.htm.

The green power LED on the Interface Board should light up when you connect the USB cable. The MiniCore and the Interface Board are now ready to be used.

NOTE: A **RESET** button is provided on the Interface Board above the Ethernet jack to allow a hardware reset without disconnecting power.

NOTE: Pins 1–2 on header JP1 on the Interface Board must be jumpered to download and debug applications and sample programs with Dynamic C running. Pins 1–2 should be left unjumpered to *run* an program already loaded in flash memory.

CAUTION: Do not jumper pins 1–3 on header JP1 on the Interface Board.

NOTE: You must cycle the main power on/off after you install or replace a backup battery to minimize current draw from the battery.

Run a Sample Program

Once the RCM5700/6700 is connected as described above, start Dynamic C by double-clicking on the Dynamic C icon on your desktop or in your **Start** menu. Select **Store Program in Flash** on the "Compiler" tab in the Dynamic C **Options > Project Options** menu. Then click on the "Communications" tab and verify that **Use USB to Serial Converter** is selected to support the USB cable. Click **OK**.

You may have to select the COM port assigned to the USB cable on your PC. In Dynamic C, select **Options > Project Options**, then select this COM port on the "Communications" tab, then click **OK**.