



Embedded Control

Camera Interface Application Kit Getting Started

Application Kit Contents

- 3 CDs — *Dynamic C*[®], *Dynamic C* FAT File System module, and supplemental CD with sample programs and information related to Camera Control Application Kit — with complete product documentation on disk.
- RCM3365 RabbitCore module.
- Camera Interposer Board to interface camera and micro-servo motors with RCM3365 and Prototyping Board.
- RCM3365 Prototyping Board, with a bag of accessory parts for use on the Prototyping Board.
- Miniature C328-7640 serial camera, plastic bracket, and 4-wire cable with friction-lock connectors.
- 10-pin header to DB9 programming cable with integrated level-matching circuitry.
- 2 power-supply harnesses (3-pin connector to red/black wires with bare leads).
- AC adapter, 12 V DC, 1 A.
- Ethernet cables.
- 2 Blue Arrow micro-servo motors.
- Infrared motion sensor.
- 4 foam doubled-sided mounting strips.
- *Getting Started* instructions.
- 32 MB *xD-Picture Card*[™] (NAND flash)
- *Rabbit 3000 Processor Easy Reference* poster.
- Registration card.

Installing *Dynamic C*[®]

Insert the CD from the Development Kit in your PC's CD-ROM drive. If the installation does not auto-start, run the **setup.exe** program in the root directory of the *Dynamic C* CD. Install any *Dynamic C* modules and the software from the supplemental CD after you install *Dynamic C*.

Rabbit Semiconductor, Rabbit, Z-World, and *Dynamic C* are registered trademarks of their respective holders.

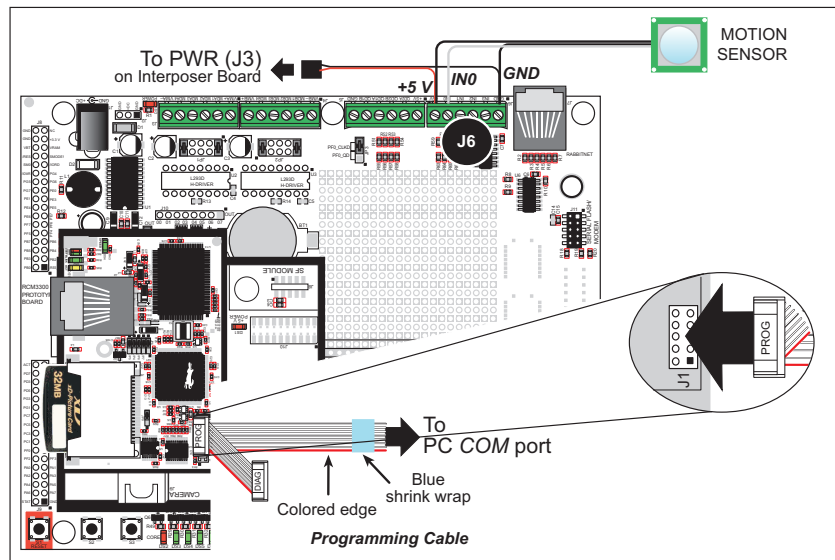


Figure 2. Connect Programming Cable, Interposer Board Power, and Motion Sensor

NOTE: Be sure to use the programming cable (part number 101-0542) supplied with this Application Kit—the programming cable has blue shrink wrap around the RS-232 converter section located in the middle of the cable. Programming cables with red or clear shrink wrap from other Z-World or Rabbit Semiconductor kits are not designed to work with RCM3365 modules.

NOTE: Some PCs now come equipped only with a USB port. It may be possible to use an RS-232/USB converter (Rabbit Semiconductor Part No. 540-0070) with the programming cable supplied with this Application Kit. Note that not all RS-232/USB converters work with Dynamic C.

If you are using the motion sensor, connect its +5 V and GND terminals to screw-terminal header J6 on the Prototyping Board—the middle black wire is +5 V—and connect its gray wire to IN0.

Once all the other connections have been made, you can connect power to the Prototyping Board. Connect the AC adapter to jack J1 on the Prototyping Board. The **POWER** LED on the Prototyping Board should light up. The RCM3365 and the Prototyping Board are now ready to be used.

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

Alternate Power-Supply Connections

All Development Kits include a harness that may be used to connect your power supply to 3-pin header J2 on the Prototyping Board. The connector may be attached either way as long as it is not offset to one side—the center pin of J2 is always connected to the positive supply, and either edge pin is negative. The power supply should deliver 8 V–30 V DC at 1 A.

3. Set Up and Connect Servo Motors and Camera

Complete the assembly of each servo motor by attaching the cross-shaped plastic blade to the motor shaft using the smallest screw from the parts bag in the motor box.

Cut a piece of a foam mounting strip and use it to secure the end opposite the turning axis of one of the micro-servo motors in an unused area of the Prototyping Board close to the edge. This will be the *pan* servo motor. You may also use another surface located close to the Prototyping Board. This *pan* servo motor can be secured more firmly if it is next to something else such as a screw-terminal header, and its side is also secured with the foam mounting strip.

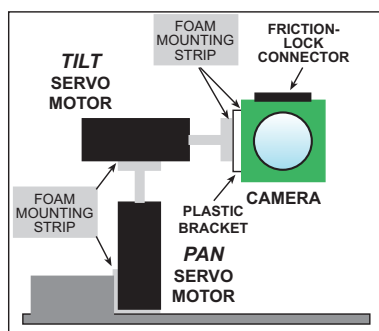
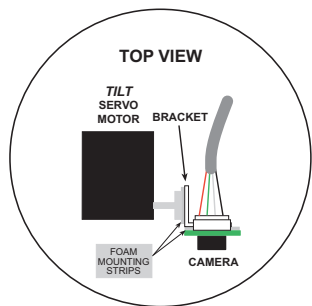
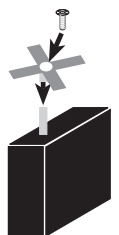


Figure 3. Servo Motor and Camera Setup

