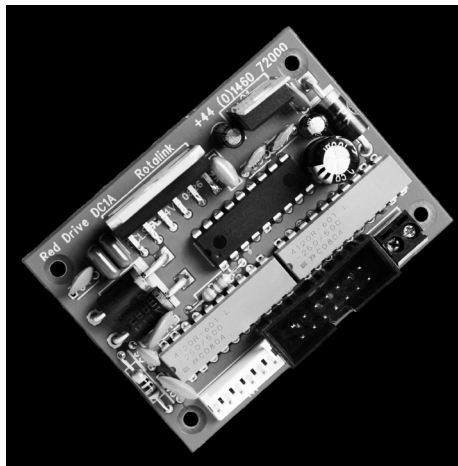


# RED DRIVE

Issue 07:CN3280



# Rotalink

Miniature Motors, Transmission and Control

Red Drive is a powerful low cost control system designed for brushed motors.

Available as both a PCB and chip only option. When combined with Rotalink motors, gearboxes and feedback devices the Red Drive system simplifies the development of powerful servo systems.

Our unique flowchart graphical software allows the user to easily program both simple and complex sequences of motion and quickly refine such programs as development continues.

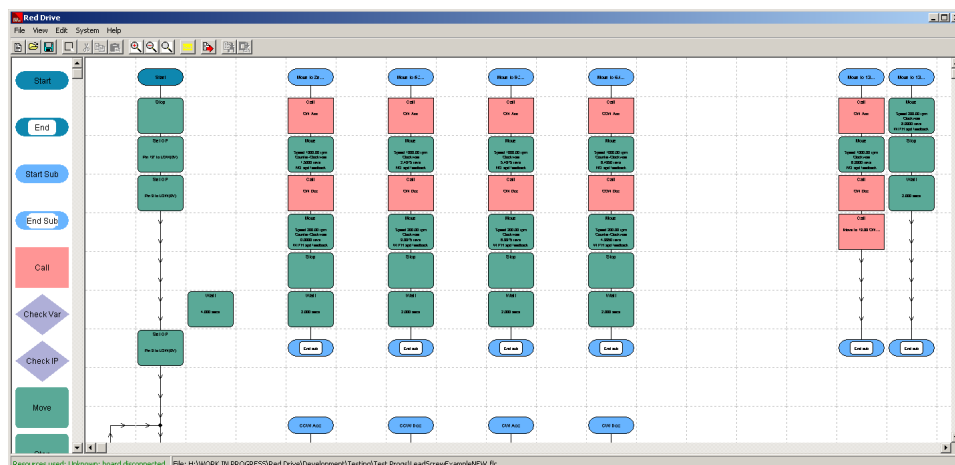
Use Red Drive throughout your product development process:

- Write your own programs and modify them, at any stage, quickly and easily.
- Prototype test and modification.
- Compatible though pre-production and production stages.
- Design with a Red Drive PCB with the option of using a Red Drive Chip on your own production board.

The Red Drive System was designed with cost at the forefront of the specification and manufactured in volumes that deliver this on this promise.

## Contents

Introduction	P1
Software	P2
Dimensions	P3
Chip Option	P4



Contact:  
[www.rotalink.com](http://www.rotalink.com)  
[info@rotalink.com](mailto:info@rotalink.com)  
 T: +44 (0)1460 72000

Rotalink Limited  
 Cropmead, Crewkerne  
 Somerset TA18 7HQ, UK

[www.rotalink.com](http://www.rotalink.com)

# RED DRIVE

Issue 07:CN3280

The Red Drive PC software is a single Microsoft Windows application which provides a uniform system for programming the control of Brushed gear motors. It utilises a simple drag and drop approach to create easy to understand program structures.

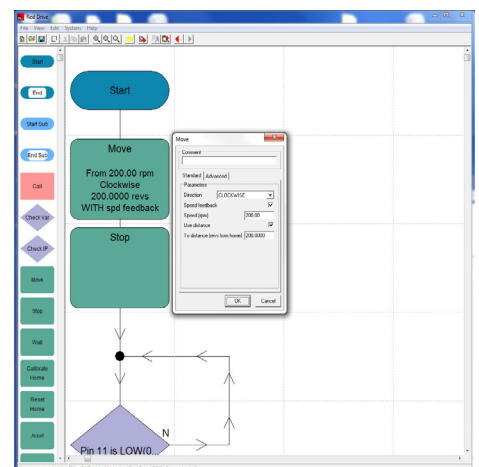
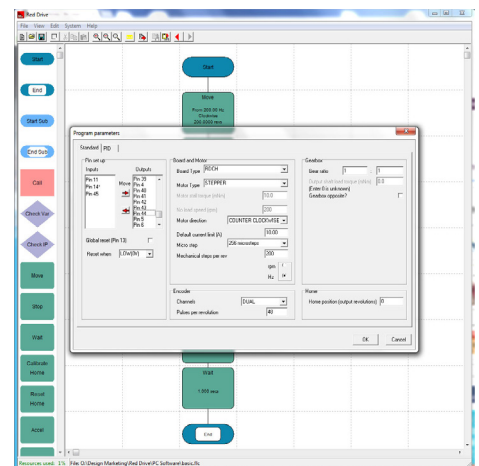
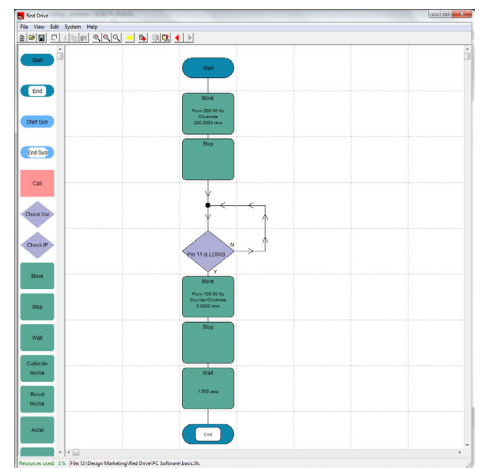
Once the motor parameters have been set up (from Rotalink Datasheets or part labels) all programming uses the units you are interested in; output shaft speed, output shaft revolutions etc. Red Drive keeps you focused on your product, no encoder pulse per rev or gear ratio calculations are required, removing unwanted distractions from your design process.

Using the Red Drive software you can program your Red Drive controller to:

- Move motor at set speed
- Move motor to set position
- Accelerate / decelerate motor
- Wait for given time periods
- Set 5V outputs (control LEDs buzzers, relays) to control higher voltages etc
- Check 5V inputs, from switches or sensors / other controllers
- Check Analogue Inputs (0-5V) from potentiometers or sensors
- Calculations on variables to allow for operation counting and other mathematical functions
- PID function for speed control
- Sub flowcharts can be created to allow for reuse of common commands

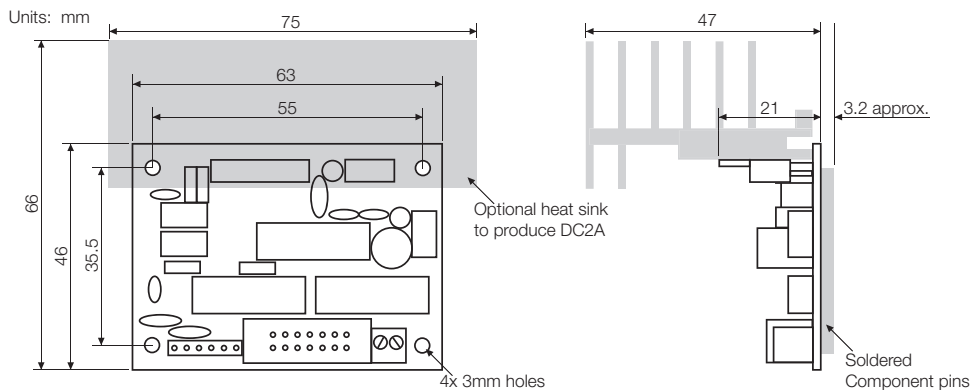
The Red Drive PC software can be downloaded in full from our website for you to evaluate, or simply to start designing whilst waiting for your hardware to arrive.

For more detail on the Red Drive software please visit our website to download the manual.



# RED DRIVE

Issue 06:CN3280

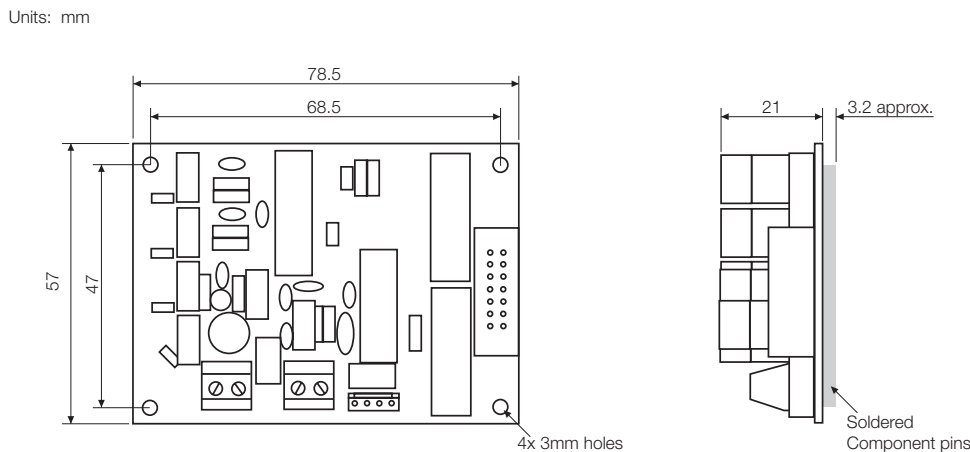


### DC\*A General Specification

Supply Voltage 9 - 30Vdc  
 Supply Current (\*) 1A (DC1A)  
 2A (DC2A)  
 Inputs/Outputs 9 I/O pins 1 input pin  
 (All TTL level - 5 suitable for analogue inputs)

### Connectors

Power 2 pin screw terminal  
 Inputs/Outputs 0.1" 14 pin  
 IDC header  
 Motor/Encoder 0.1" 6 pin  
 snap lock header



### DC10A General Specification

Supply Voltage 15 - 30Vdc  
 Supply Current 10A  
 Inputs/Outputs 9 I/O pins 1 input pin  
 (All TTL level - 5 suitable for analogue inputs)

### Connectors

Power 2 pin screw terminal  
 Inputs/Outputs 0.1" 14 pin  
 IDC header  
 Motor 2 pin screw terminal  
 Encoder 0.1" 4 pin  
 snap lock header



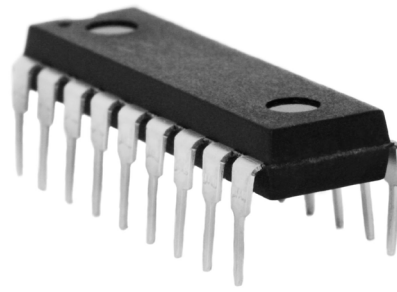
### SA1 General Specification

Programming adaptor for use with:  
 DC1A, DC2A & DC10A

Serial Port Connector RS-232  
 (Female)  
 Red Drive Connector 0.1" 18 way  
 Red Drive Supply Voltage 7-30Vdc

# RED DRIVE

Issue 07:CN3280



## Our chip + your PCB = Optimised Control

If your project is high volume or will require a bespoke PCB, you should consider the Red Drive chip option.

### Benefits:

- Use the Rotalink Red Drive Control board to develop your product.
- Then, design your power circuitry to the exact requirements of your product. Optimise the circuitry - optimise the cost.
- Rotalink can provide ICs with your process flowchart already in place - reducing your production time.
- Retain the ability to Program the IC to enable last minute updates
- Flowcharts used during development with Rotalink control PCBs will function without modification in your production specification. Reducing development risk and time to market

### Chip Options

#### Chip specifications

IC	Voltage	I/O	Memory	EEPROM
RDC01	5v	10	3k	YES