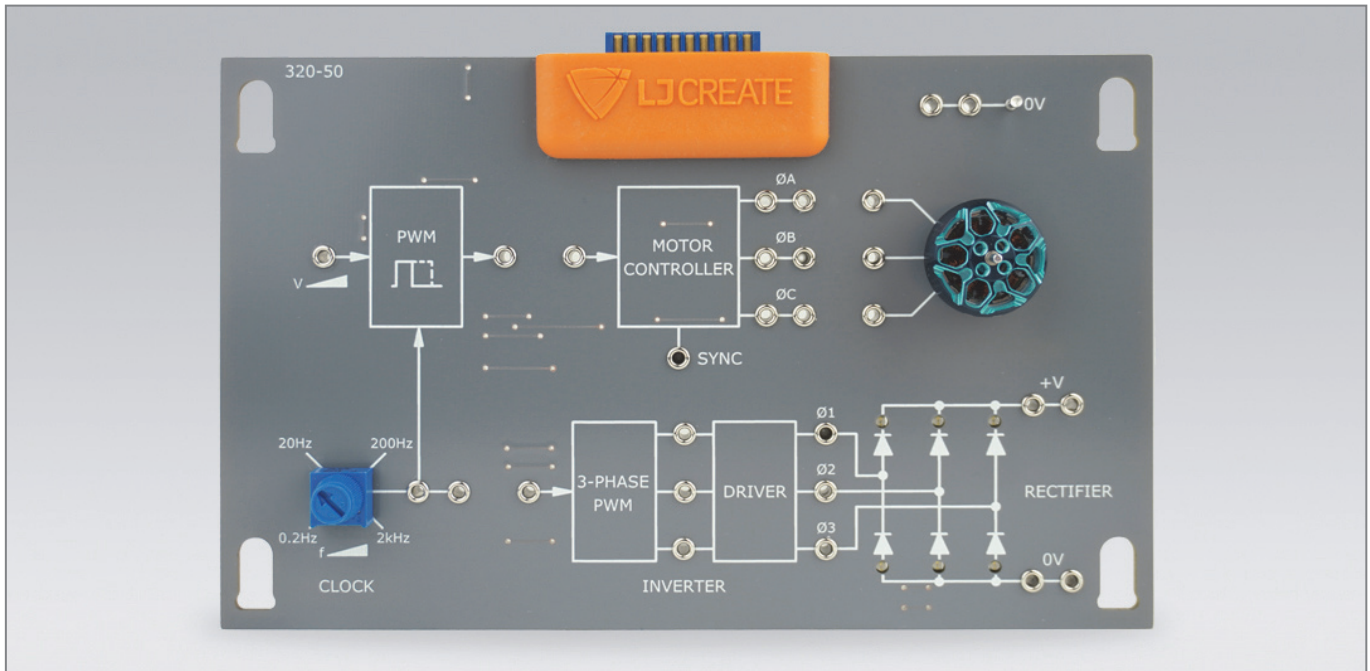


# Product Information Sheet

## Pulse Width Modulation Signals Card



This practical resource allows students to investigate Pulse Width Modulation, three phase motor control and three phase rectification through a range of practical activities.

The card is designed for use with the Electronics Study Trainer (320-00).

Practical activities based around this card are available within the digital curriculum materials provided with the Electronics Study Trainer.

The card may also be used with our optional cloud-based software. This contains theory presentations, investigations, and assessments, which link directly to the practical activities carried out using this resource.

### The Card Includes the Following:

- DC Voltage to PWM Generator
- Variable Clock Input
- PWM to Three-Phase Motor Controller
- Inverter Driver
- Three-Phase Rectifier with Indicator LEDs
- Three-Phase Motor
- Switched faults for fault-finding activities

### Practical Tasks Include the Following:

- PWM signal driving an LED
- PWM signal – variable frequency and duty cycle
- PWM motor speed control circuit
- Investigation of a sensorless motor speed control signal
- Investigation of a 3-phase waveform
- 3-Phase inverter driver circuit
- PWM to 3-phase drive signal
- 3-Phase bridge rectifier circuit
- Rectifier with DC smoothing capacitor
- Fault-finding signal conditioning circuits

### Items Included:

- Circuit Card

### Other Items Required:

- Electronics Study Trainer (320-00)
- Digital Multimeter
- Dual Trace Oscilloscope

### General Information:

Card Dimensions:  
160 x 100 x 20 mm (W, H, D)

Packaging:  
Orders for multiple 320-series cards are shipped in storage boxes.

Shipping Volume:  
Single card: 0.001 m<sup>3</sup>  
Storage box: 0.015 m<sup>3</sup>

Shipping Weight:  
Single card: 0.2 kg  
Storage box: 0.5 kg

Please contact LJ Create for estimated shipping volume and weight for your specific order requirements.

**Order Code: 320-50**

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For more information visit [www.ljcreate.com](http://www.ljcreate.com)