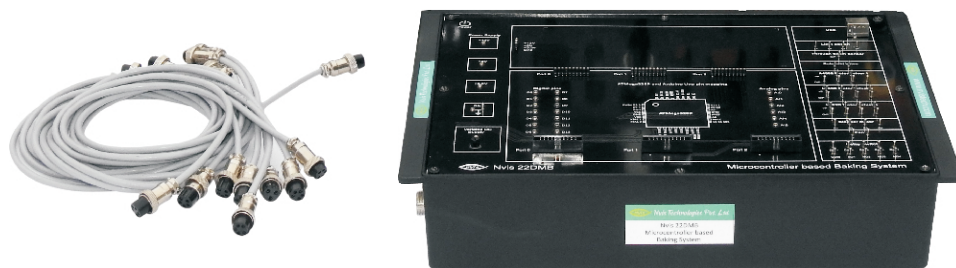




Micro-Controller based Baking System

Nvis 22DMB



Nvis 22DMB “Microcontroller based Baking System” is designed to provide practical hands-on experience with microcontroller programming and interfacing. It is a popular tool used in educational institutions and industry for teaching and learning microcontroller concepts.

It includes a microcontroller board, which serves as the core component. This board is equipped with a microcontroller chip (such as an 8-bit or 32-bit microcontroller) along with all the necessary supporting circuitry. The system includes various peripherals that can be interfaced with the microcontroller board to make the system complete understanding.

Features

- Standalone and easy to use.
- Arduino based platform
- Standard I/O interface facility.
- On board GPIO and Power supply.
- IO's are connected by bread strips for easy connection.
- Provided with USB interface for programming and Simulation software.
- Supports simulator & Arduino IDE Software.



Scope of Learning

Study and interfacing of

- Conveyor structure for mixing stage.
- Conveyor structure for solenoid valve stage.
- Conveyor structure for heating stage.
- Conveyor structure for cooling stage.
- Conveyor structure for packing stage.
- Conveyor structure to test and understand the working of all relays.
- Conveyor structure for main code for conveyor stage.

Technical Specifications

Input Mains : 220V AC \pm 10%, 50Hz

DC Input Supply : 3.3V, 5V, 12V, Gnd

Motor

Type : Stepper

Phase : 2 phase

Stepper driver : A4988 (1no.)

DC Motor

Voltage : 12V

Speed : 60 RPM

DC Motor driver : L293D

Timing belt, drive pulley, idler pulley : 1 no. (each)

Relay module : 5VDC (4nos.)

Optical IR based limit switch : 4nos.

BO motor : 1no.

Solenoid valve : 12VDC (1no.)

Through beam sensor : 1no.

Exhaust fan : 12VDC (1no.)

Software : Simulator and application

DIN to DIN cable : 8 nos.