

4 Strokes Engine

OBJECTIVE
Understanding each of stroke of 4stroke engine.

Bearing Test

OBJECTIVE
-Measuring the pressure gradient of oil film at the plain side bearing.
-Investigate the difference of pressure gradient depending on the speed of slide and oil film ratio.

Cam Motion

OBJECTIVE
Understanding Displacement, Velocity and Acceleration as varying the rotational velocity of cam.
Observing cam movement depending on the kind of spring.

Engine Performance

OBJECTIVE
-Investigating factors to estimate gasoline engine performance.
-Investigating the relationship of the factors which affects engine performance.

Free Vibration - Spring

OBJECTIVE
Measuring a spring constant and understanding the free vibration.

Features & benefits

- Interactive programs
- Significant improvement with the understanding of the experiment
- Experiments show that the experiment is difficult to implement
- Virtual laboratories are available anywhere

- Virtual laboratories are available at any time
- Unlimited attendance
- Easy to be maintained and upgraded
- Excellent price-to-performance ratio

Training Contents: more than 50 different subjects

Controls : 6

- OP AMP
- DC-SERVO MOTOR(1)
- DC-SERVO MOTOR(2)
- Inverted Pendulum
- P.L.C(Programmable LogicControl)
- Air / Oil Pressure Circuit

Structures : 6

- Beam Deflection
- Stress Measurement
- Buckling
- Polariscope
- Truss
- Bearing Test

Mechanical design : 5

- Two degrees of freedom free vibration test
- Implementation of vehicle suspension movement
- Sphere collision experiment
- Strain gage experiment
- Experiment of deflection of beam

Materials : 6

- Tensile Test
- Hardness Test
- Impact Test
- Micro Structure of Steel
- NDT (NonDestructive Test)
- Cam Motion

Precision processing : 5

- Beam Deflection
- Stress Measurement
- Buckling
- Polariscope
- Truss
- Bearing Test

Dynamics : 5

- Free Vibration (Spring)
- Inclined Fall
- Forced Vibration
- Collision Pendulum
- Rotating Unbalance

Thermal fluid : 2

- Convection heat transfer experiment
- Experiments on the measurement of jet flow velocity using Pitot tube

Thermo Dynamics : 5

- Flow Visualization-Shileren
- Heat Pump Test
- Heat Conduction
- Boiler Test
- Engine Performance

Fluid Dynamics : 6

- Draft/Lift Force
- Air Jet
- Pitot tube
- Jet Impact
- Centrifugal Fan
- Pipe Friction
- Radiation thermal transfer experiment

Automobile : 9

- 4 Strokes Engine
- Rack & Pinion Steering Gear
- Coil Spring Clutch
- Saxomat Clutch
- Running Performance
- Sliding Transmission
- Hydraulic Brake
- Diaphragm Clutch
- Circulatory System