

Cat. No. B10-2638-W0

GENECON Due with Pulley INSTRUCTION MANUAL

Thank you for purchasing the GENECON (DC generator) DUE with a pulley. This GENECON has a pulley instead of a handle. It may be used for energy conversion experiments such as hoisting a weight hung from the pulley and, conversely, dropping the weight hung from the pulley to light a miniature lamp by connecting it to another GENECON.

[Instructions]

- Do not bring the product close to fire or moisten it.
- Do not store the product in a hot and humid place.
- Be very careful of shocks when dropping a weight. If the shocks are too intense due to heavy weight, the GENECON may break.
- Before starting an experiment, secure the GENECON DUE with a pulley to a stand firmly and make sure that the stand is also secured on flat surface.
- Fix a weight firmly to the string.
- Tighten the pulley firmly with a hexagon wrench if it becomes loose.
- If a weight is dropped from the pulley in the condition where no load is connected or a low-load LED is connected to the pulley, it drops very quickly. Be very careful.

Product Specifications

Materials: Body (Polycarbonate)

Pulley (Aluminum)

Sizes: 115×140×43 mm

φ 50×10 mm (pulley)

Accessory: Kite string, 2 m



[Usage]

- Attach the kite string supplied with the product to the pulley. The pulley has a hole for knotting the string in the outer circumference. Pass the string through it and fasten it. Wind the string around the pulley before the experiment every time.
- Plug the attached cable to the body (red cap). Connect a miniature lamp, etc to it and you can start using it for experiments.

[Examples of Experiments]

Example 1: Experiment of hoisting a weight hung from the pulley

1. Connect a large weight (500g) or PET bottle filled with water to the top of the string attached to the pulley.
2. Connect the GENECON DUE with pulley with another GENECON DUE by its alligator clips using the attached cables.
3. Secure the GENECON DUE with pulley to a steel stand or hold firmly with a hand in the condition where the weight can be hoisted when the pulley rotates.
4. Rotate the handle of the connected GENECON DUE. Make sure that the pulley rotates, and the weight is wound up. It is possible to check the heaviness of the GENECON DUE handle or calculate the transition of energy if a voltmeter or ammeter is connected.

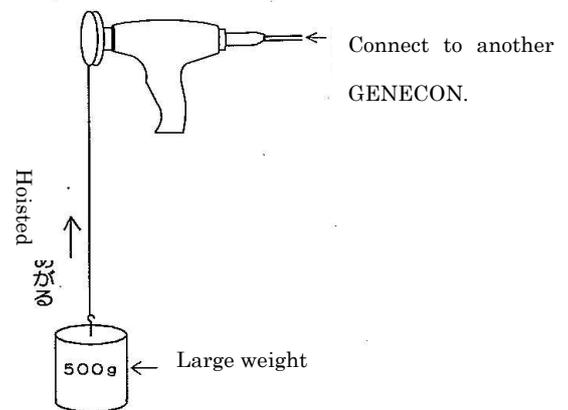


Fig. 1

Example 2: Dropping the weight hung from the pulley to light a miniature lamp

1. Connect a miniature lamp to the cable connected to the GENECON DUE with pulley. Miniature bulb with specifications 3.8V, 0.3A or equivalent is recommended.
2. Attach a large weight of 1 kg or so or a PET bottle filled with water to the top of the string and support firmly.
3. Secure the GENECON DUE with pulley with a steel stand, etc. or hold it with a hand firmly. When it is fixed with a steel stand, the stand may fall. Secure the base with tape, etc.
4. Wind the kite string with the weight around the pulley and drop the weight. The pulley rotates and the miniature lamp will light.
5. It is possible to calculate energy conversion if the dropping distance of 1 meter is measured, a voltmeter or ammeter is connected, and data are recorded.

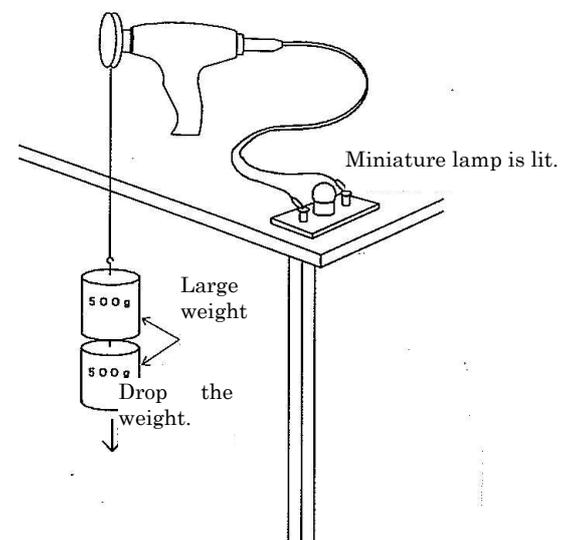


Fig. 2

* The dropping speed of the weight differs based on the specification of the miniature lamp.

NaRiKa Corporation

5-3-10 Sotokanda, Chiyoda, Tokyo, 101-0021 Japan

<http://www.global.narika.jp/>