

PASCO 012-10658A Structures Lab Experiments



PASCO 012-10658A Structures Lab Experiments Instruction Manual

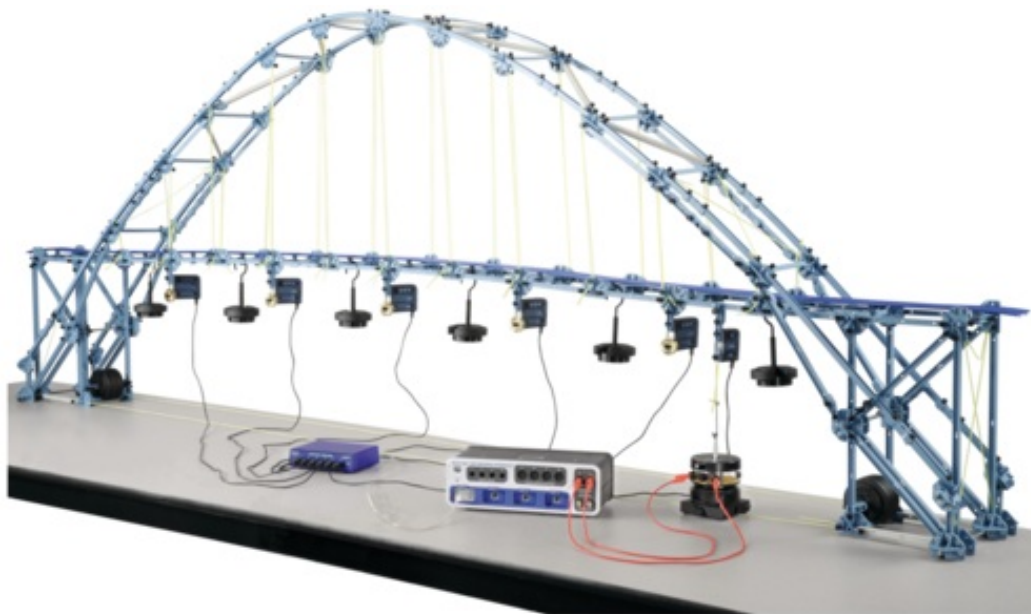
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PASCO

PASCO 012-10658A Structures Lab Experiments



Specifications

- **Product Name:** PASCO Structures
- **Includes:** Beams, connectors, cords, axles, wheels, pulleys
- **Features:** Adjustable angle connectors, cord tensioning clips, rotating wheels and pulleys

Product Usage Instructions

Structure Parts Assembly

To assemble structures, use thumbscrews to attach beams and connectors. Follow the illustrations in the manual for various assembly methods.

Connecting Beams and Connectors

1. Connecting a beam to a half-round connector.
2. Connecting two beams with a straight connector.
3. Connecting a beam to a flat round connector with an angle connector for adjustable angles and lengths.
4. Connecting two beams with a sliding connector. Loosen the larger thumbscrew without completely removing it from the sliding connector.

Beam Lengths and Triangles

- Refer to the illustrations in the manual for creating triangles using angle connectors.

Attaching Cords

- Use cord tensioning clips to attach cords to connectors for easily adjustable length-tension.

Axles and Wheels

1. Attach an axle to a half-round connector using a screw.
2. Connect a wheel to an axle with a screw for free rotation.
3. Mount a tyre on a wheel and an o-ring on a pulley for further applications.

FAQ

- **Q:** Can I disassemble the structures easily?
- **A:** Yes, you can disassemble the structures by unscrewing the thumbscrews from the beams and connectors.
- **Q:** Are the cords durable?
- **A:** The cords are designed to be durable and withstand repeated adjustments using the tensioning clips.

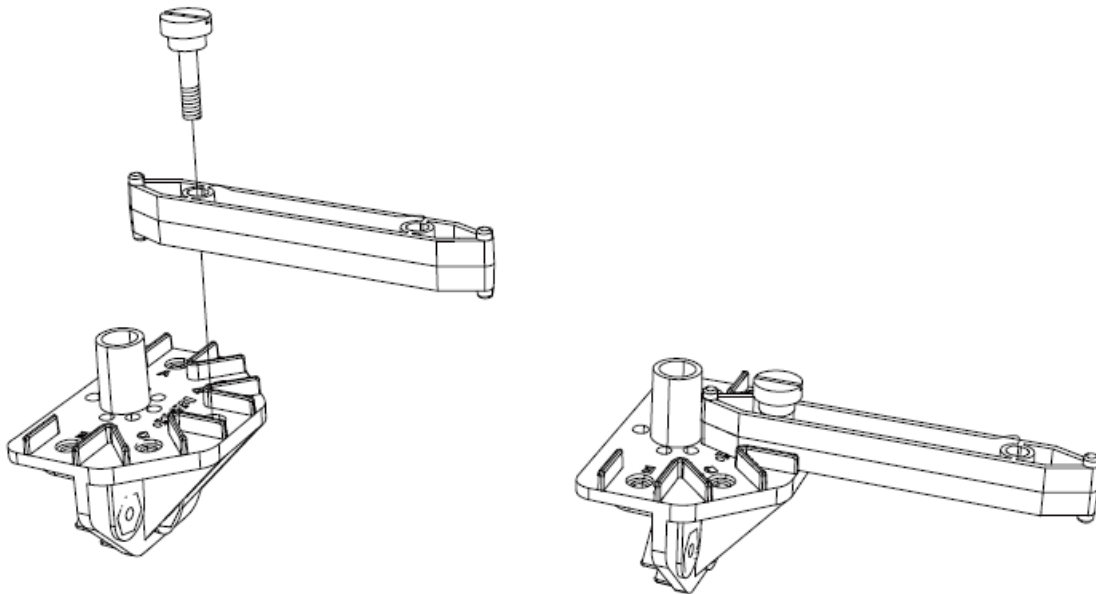
Introduction to PASCO Structures

Structure parts

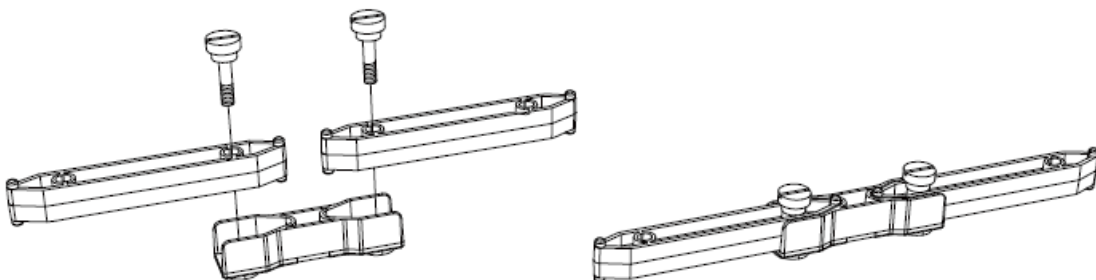
Assembling beams and connectors

Create structures by using thumbscrews to attach beams and connectors. Some of the ways to assemble beams and connectors are illustrated below:

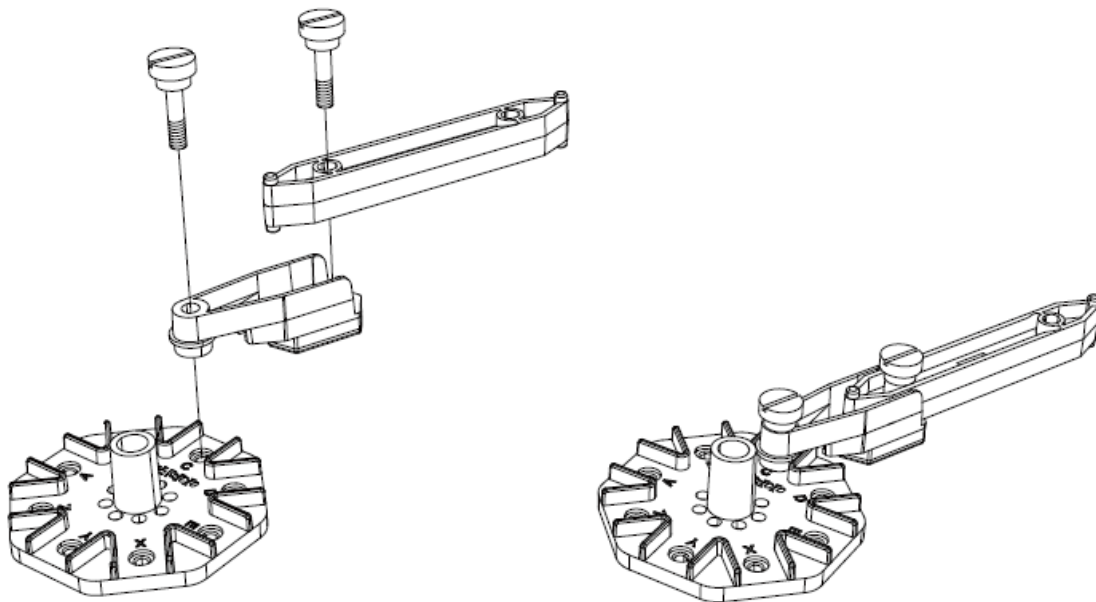
- Connecting a beam to a half-round connector



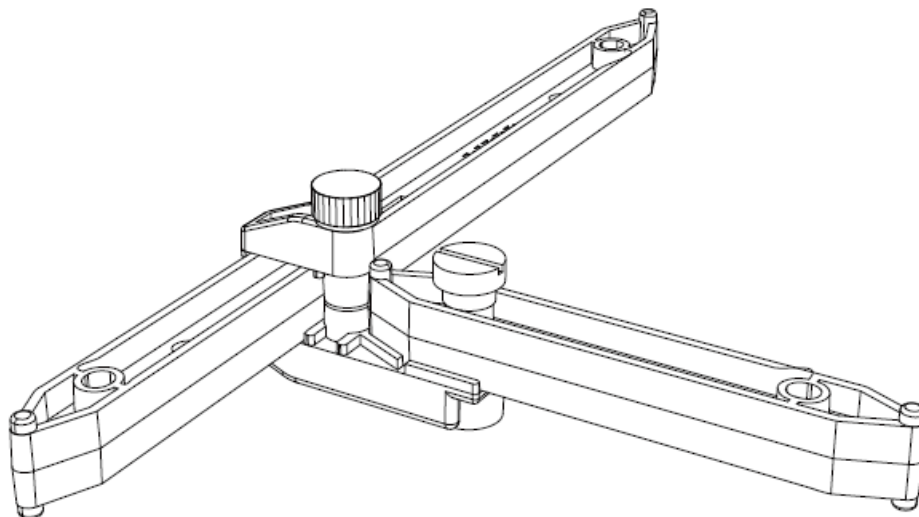
- Connecting two beams with a straight connector



- Connecting a beam to a flat round connector with an angle connector. The angle connector allows adjustment to both the angle and length of the beam.

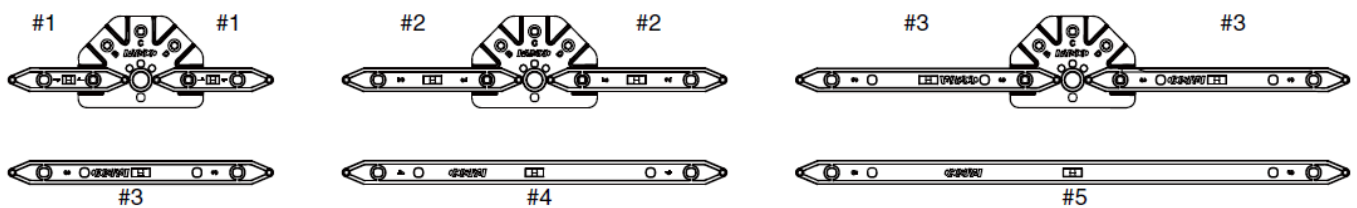


- Connecting two beams with a sliding connector. The larger thumbscrew only needs to be loosened, never completely removed from the sliding connector.

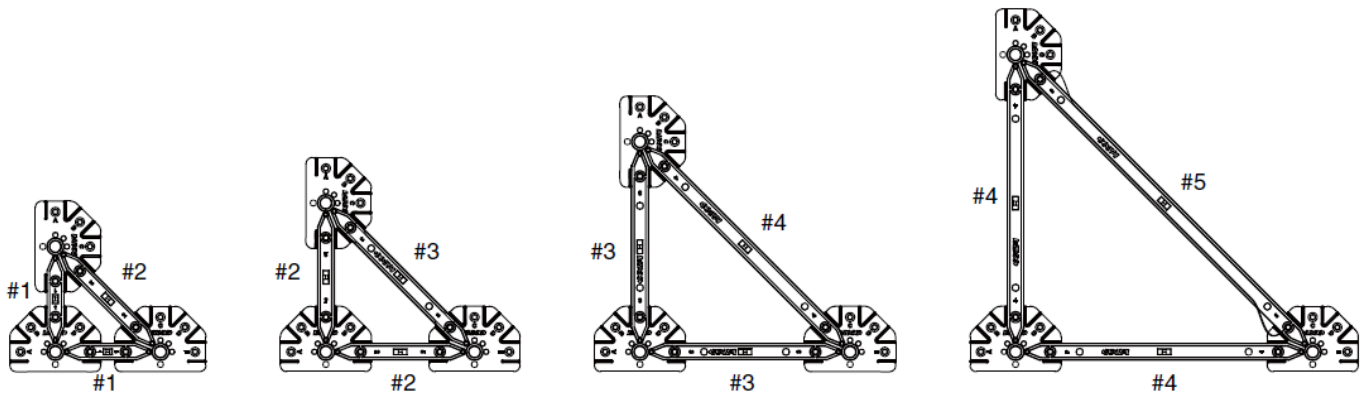


About beam lengths and triangles

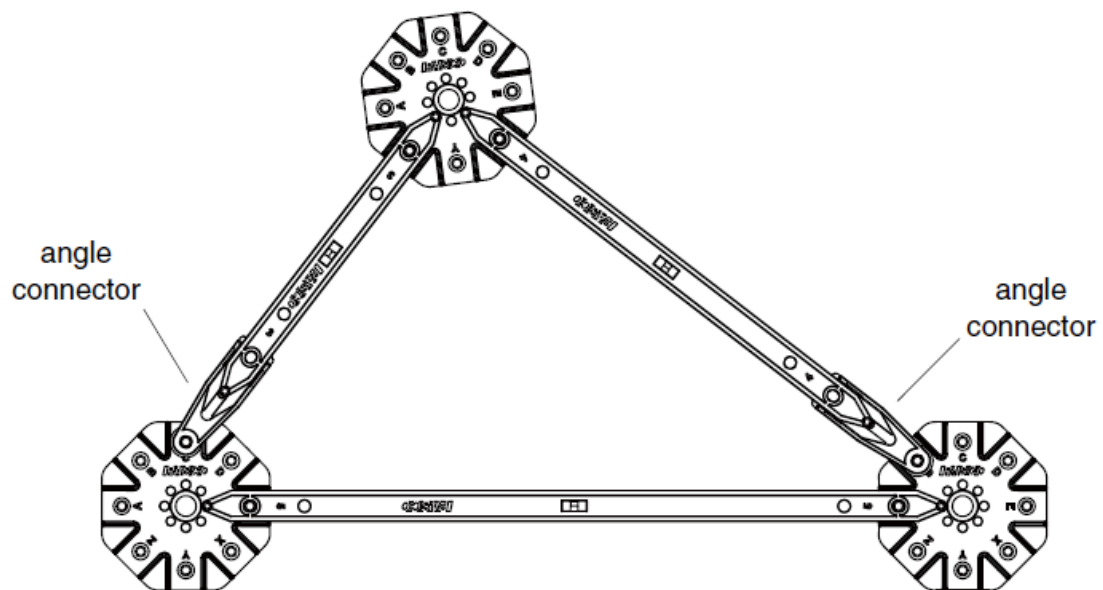
- When joined at a 180° angle with a connector, two identical short beams have a combined length equal to one longer beam.



- Isosceles right triangles, which contain only 90° and 45° angles, can be made using the combinations of beams illustrated below.



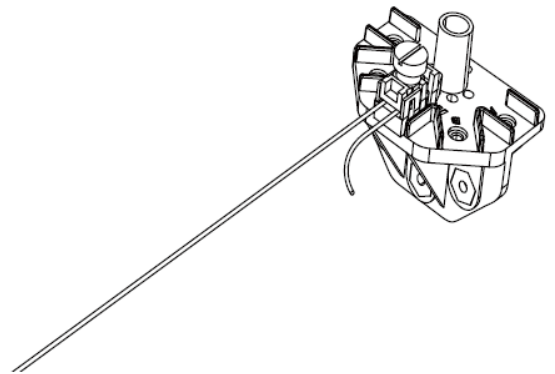
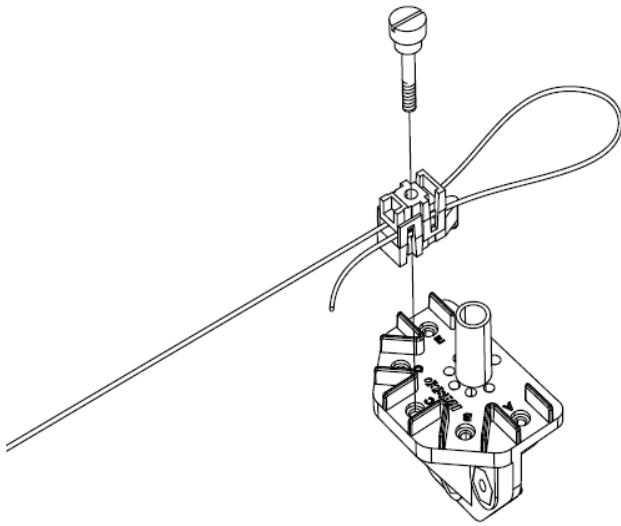
- To make triangles with angles other than 90° and 45° , use two or more angle connectors. Angle connectors allow both the length and angle to vary.



Example of a triangle using angle connectors

Attaching cords

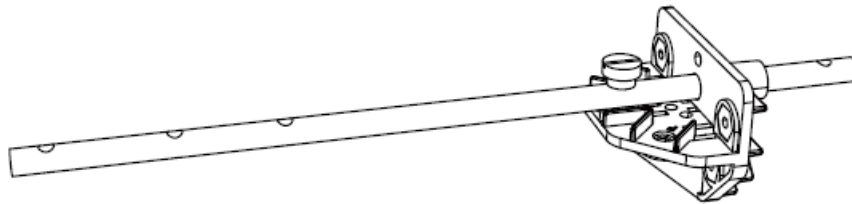
- Use cord tensioning clips to attach cords to connectors. The clips allow the length-tension of the cord to be adjusted easily. Note that each clip consists of two loosely captured parts that are not meant to be separated.



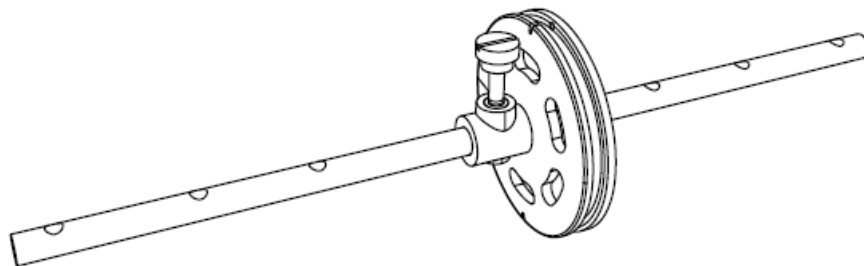
Axles and wheels

Examples showing uses of axles, pulleys, and wheels are illustrated by

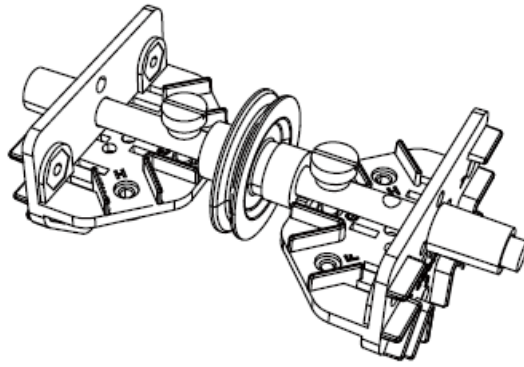
- Axle connected to a half-round connector with a screw



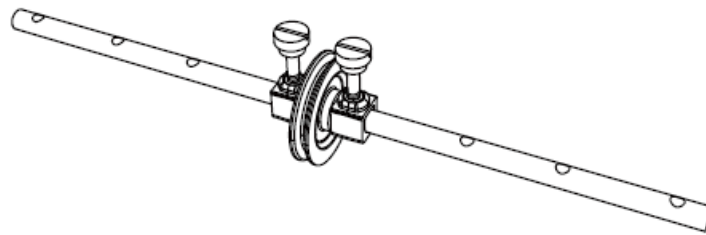
- The wheel is connected to an axle with a screw



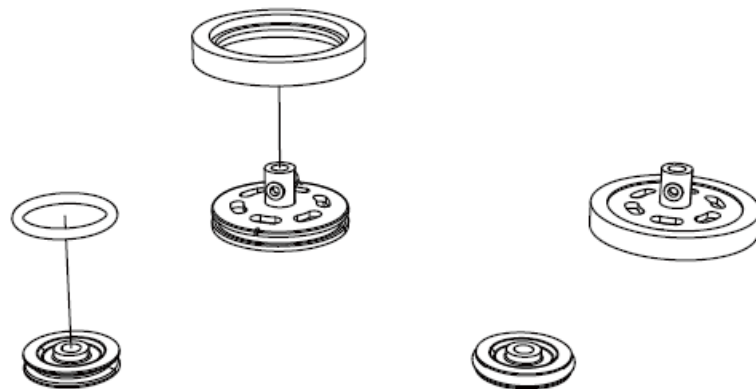
- This wheel is free to rotate on the axle attached to two half-round connectors.



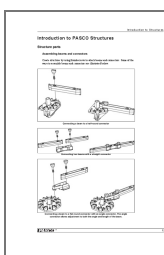
- This pulley is free to rotate on the axle and is held in place by the collets



- Mounting a tyre on a wheel and an o-ring on a pulley



Documents / Resources



[PASCO 012-10658A Structures Lab Experiments](#) [pdf] Instruction Manual
012-10658A, 012-10658A Structures Lab Experiments, Structures Lab Experiments, Lab Experiments, Experiments

References

- [User Manual](#)

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