Quick Set-up Guide

Wooden Sit and Reach Tester, Small and Large

ISAAN SPORT TECHNOLOGY



The parts as they come in the box. (Small size pictured. Large size varies slightly.)

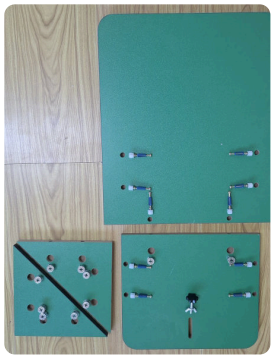
In the Box

- **Flat-pack box.** A base, a front plate printed with two foot outlines, and two triangle side braces, with the connecting bolts and cam locks in a bag.
- **Ruler** marked in millimetres, a **red slider**, and a black L-shaped **metal bracket** with a row of holes.
- **Height lock:** a black knob on a bolt, a washer (some models only) and a butterfly nut.
- **Red mat,** a **screwdriver** and the maker's leaflet.
- **Not in the box:** a tape measure, for setting the ruler height.

Assemble

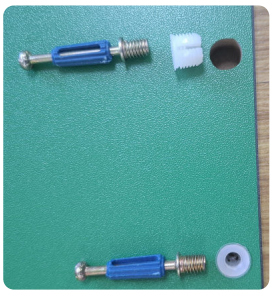
1 **Lay out the pieces**

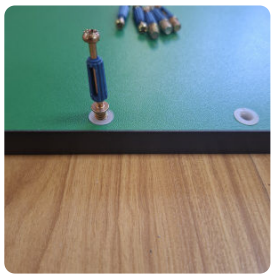
Lay the base, the front plate (the panel with the slot and the knob bolt) and the side braces flat, as in the photo, with each connecting bolt and cam lock beside the hole it goes into.



2 **Fit the connecting bolts**

Take the white plastic sleeve off each connecting bolt and push it into its hole in the base and the front plate. Then screw the bolt into the sleeve with the screwdriver.





3 **Fit the cam locks**

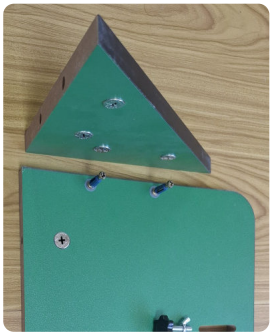
Press each round metal cam lock into its large hole in the face of the panel, with its open side toward the small hole in the edge where the bolt comes in, and its screw slot facing upwards.

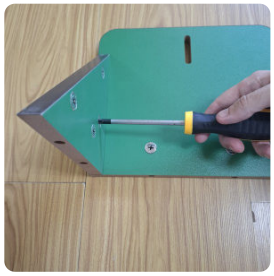




4 **Fit the side braces**

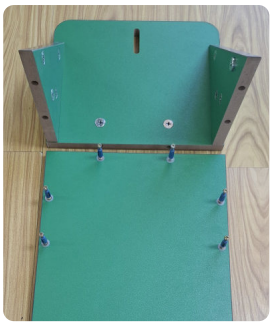
Fit the two triangle side braces onto the bolts and turn each cam lock clockwise with the screwdriver until it locks onto the bolt.





5 **Complete the box**

Take the 2 box sections and place the part-assembled section onto the 6 protruding bolts, then lock the 6 cam locks with a screwdriver.

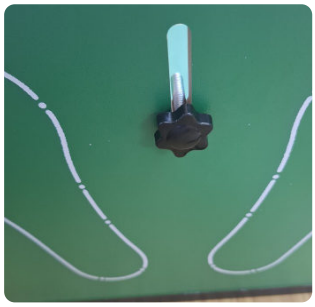




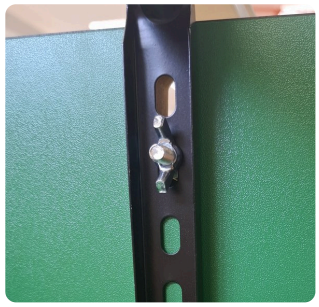
6 **Fit the bracket**

Push the knob bolt, with a washer (some models only), through the slot of the front plate from the foot side. At the back, put it through a hole in the long arm of the bracket, then add the butterfly nut. Tighten the butterfly nut part-way, then finish tightening via the knob. The short arm of the bracket holds the ruler, with the end marked 20 toward where you will sit. Slide the red slider onto the ruler. Spray lubricant onto a tissue and apply it to the sides of the ruler, so the slider will slide smoothly.









Set the Ruler Height

- Choose a hole in the bracket for the bolt to pass through, then slide the bolt up or down in the slot of the front plate for the fine setting. The photos below show the hole to use for a 30 cm setting.
- **Lock it.** Tighten the butterfly nut part of the way only, then finish tightening with the black knob. The butterfly nut is then held by the metal bracket. Winding up the butterfly nut alone does not lock the height.

> **For the Thai school test, set the ruler to 30 cm.** Small size: bolt in the 4th hole from the top of the bracket. Large size: bolt in the 3rd hole from the top. Then stand a tape measure on the floor beside the ruler, measure to its top face, and slide the bolt in the slot until it reads 30 cm. The Department of Physical Education test manual for students aged 13 to 18 (2562, page 12) asks for a box 30 cm high with a centimetre scale that runs from negative to positive.



Small size, bolt set for 30 cm.



Large size, bolt set for 30 cm.



Checking 30 cm with a rule.

Run the Test

1. **Place the mat and the tester**
   Lay the mat on the floor and stand the tester at one end, preferably with its back edge against a wall to avoid sliding, with the foot outlines facing the mat. Slide the slider to the end of the ruler nearest the mat.



2. **Sit with your feet on the outlines**
   Take your shoes off. Sit upright on the mat with your legs straight and both feet flat against the front plate, on the foot outlines.



3. **Reach forward**
   With your arms straight and palms down, lean forward slowly and push the slider along the ruler as far as you can. Keep your knees straight and do not jerk the slider.



> **Thai school test.** The Department of Physical Education test manual for students aged 13 to 18 (2562, pages 12 and 13) sets these rules:
> - Stretch your arms, legs and back before the test, and take your shoes off.
> - Place one hand on top of the other, palms down, with your elbows straight.
> - Hold your furthest reach for 3 seconds.
> - Take two attempts in a row and record the better one, in centimetres.
> - Repeat the attempt if the knees bend or the body rocks to gain distance.

Read the Score

- Read the ruler at the face of the slider that your fingertips pushed. Each small line is 1 mm, with a number at every centimetre.
- A reach that stops before 0 is a minus score. A reach past 0 is a plus score. The scale runs from -20 to +40 cm.
- Slide the slider back to the start before the next attempt.

Care and Size

Before each session, check that the knob is tight and the ruler does not move. For smooth operation, spray lubricant on a tissue, then rub it on the left and right sides of the numbered ruler. Store the tester dry.

Part	Small	Large
Scale	-20 to +40 cm, marked in millimetres	
Ruler height	24.5 to 39.5 cm	27.5 to 42.5 cm
30 cm setting	4th hole from the top	3rd hole from the top

Sit and Reach Individual Sheet

Name _____ Date of birth or age _____

Sex _____ School, class or team _____

Date	Attempt 1 (cm)	Attempt 2 (cm)	Better score (cm)	Notes

Two attempts in a row, held for 3 seconds. Record the better one, in centimetres. Write a minus sign for a reach that stops before 0. Use the same tester, ruler height and warm up each time, so the results can be compared.

Sit and Reach Class Sheet

School and class _____ Date _____

Tester _____

No.	Name	Sex	Age	Attempts (cm)		Better score (cm)	Notes
				1	2		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Two attempts in a row, held for 3 seconds. Record the better one, in centimetres. Write a minus sign for a reach that stops before 0. Use the same tester, ruler height and warm up each time, so the results can be compared.