Robot Leg Drawing: Joints and Segments

Original task 1 / independent drawing and calculation

Task 1

Draw a robot leg with a ball hip, hinge knee, and hinge ankle. Use upper segment 7 cm, lower segment 4 cm, foot 2 cm. Label all joints and lengths.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Robot Leg Drawing: Joints and Segments

Original task 2 / independent drawing and calculation

Task 2

A robot leg has upper segment 8 cm and lower segment 6 cm. Draw it with a hinge hip and ball knee. Add a foot of 3 cm. Label all parts.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Robot Leg Drawing: Joints and Segments

Original task 3 / independent drawing and calculation

Task 3

Draw a robot leg with three hinge joints: hip, knee, ankle. Use upper 5 cm, lower 5 cm, foot 1.5 cm. Show motion arrows at all three joints.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Robot Leg Drawing: Joints and Segments

Original task 4 / independent drawing and calculation

Task 4

Design a robot leg with one ball joint and two hinge joints. Choose segment lengths that sum to 12 cm for the two main segments. Draw and label the leg.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Full drawing sheet / reusable blank workspace

Reusable full drawing sheet for Tasks 1 to 4. Print another copy when needed. Keep all original task measurements; if a task specifies larger paper, use that paper size.