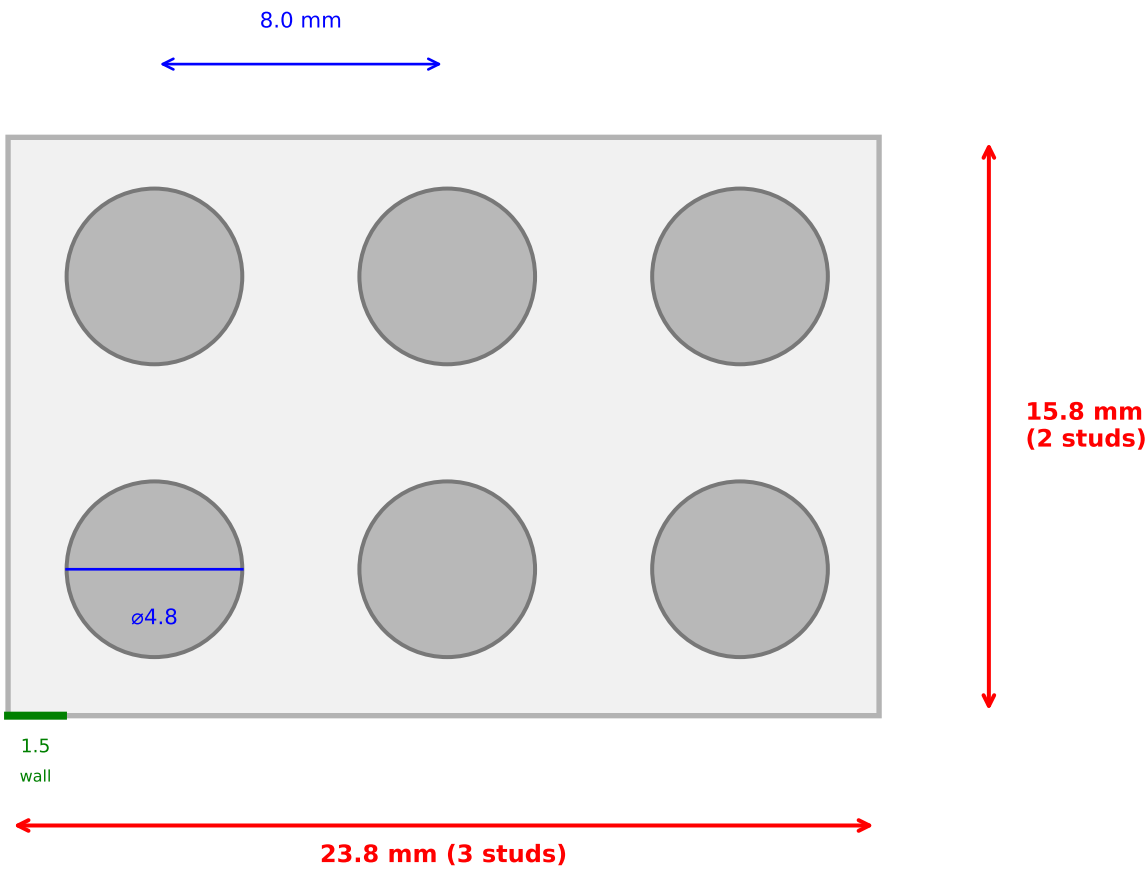


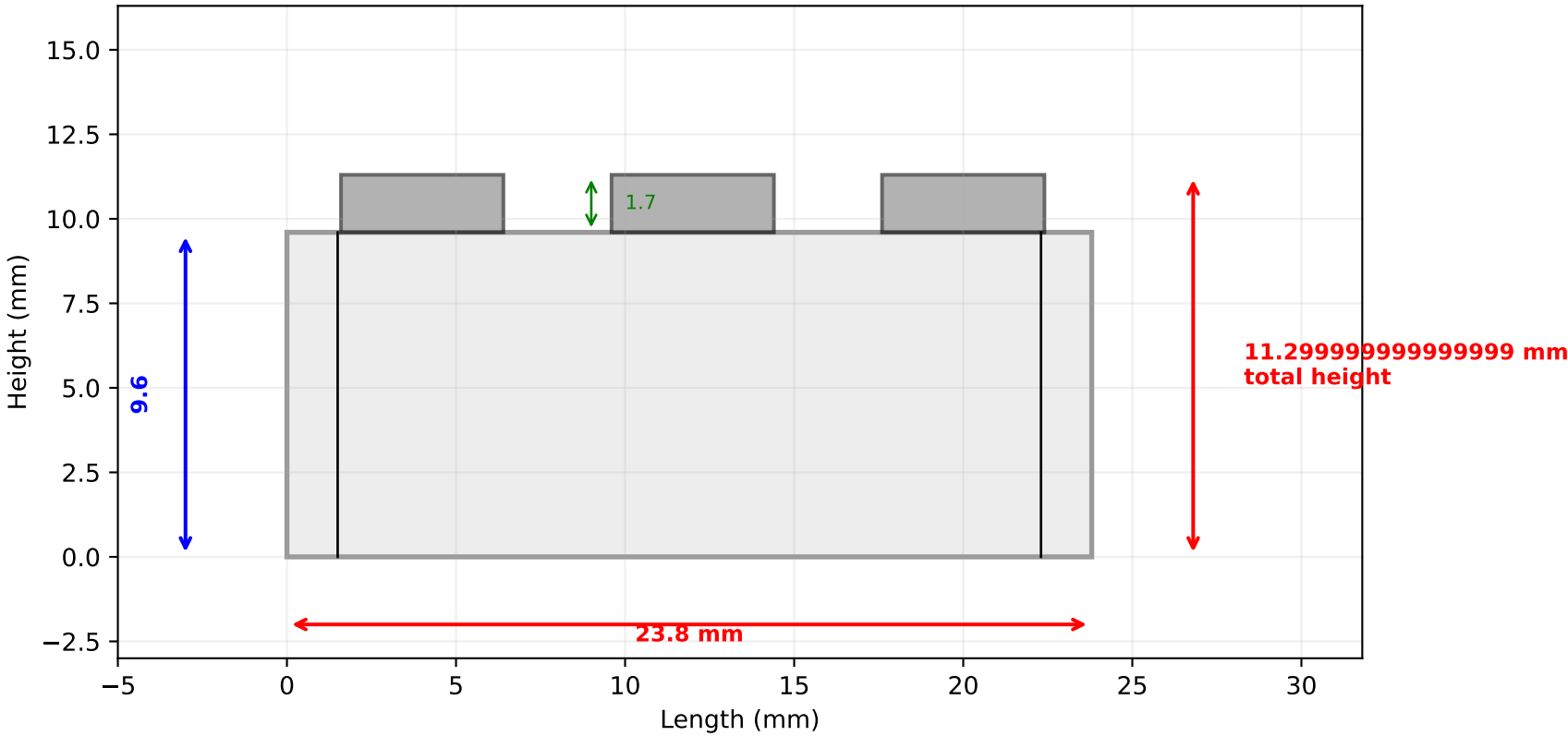
LEGO 2×3 STUD BRICK - TECHNICAL DRAWING

DIMENSIONAL SOURCES:
1. Zoeblade, Z. "Lego brick dimensions" https://notebook.zoeblade.com/Lego_brick_dimensions.html
2. Orionrobots. "Lego Specifications" <https://orionrobots.co.uk/Lego+Specifications>
3. "LEGO Brick Dimensions and Measurements: Complete Guide" <https://datainches.com/lego-brick-dimensions/>

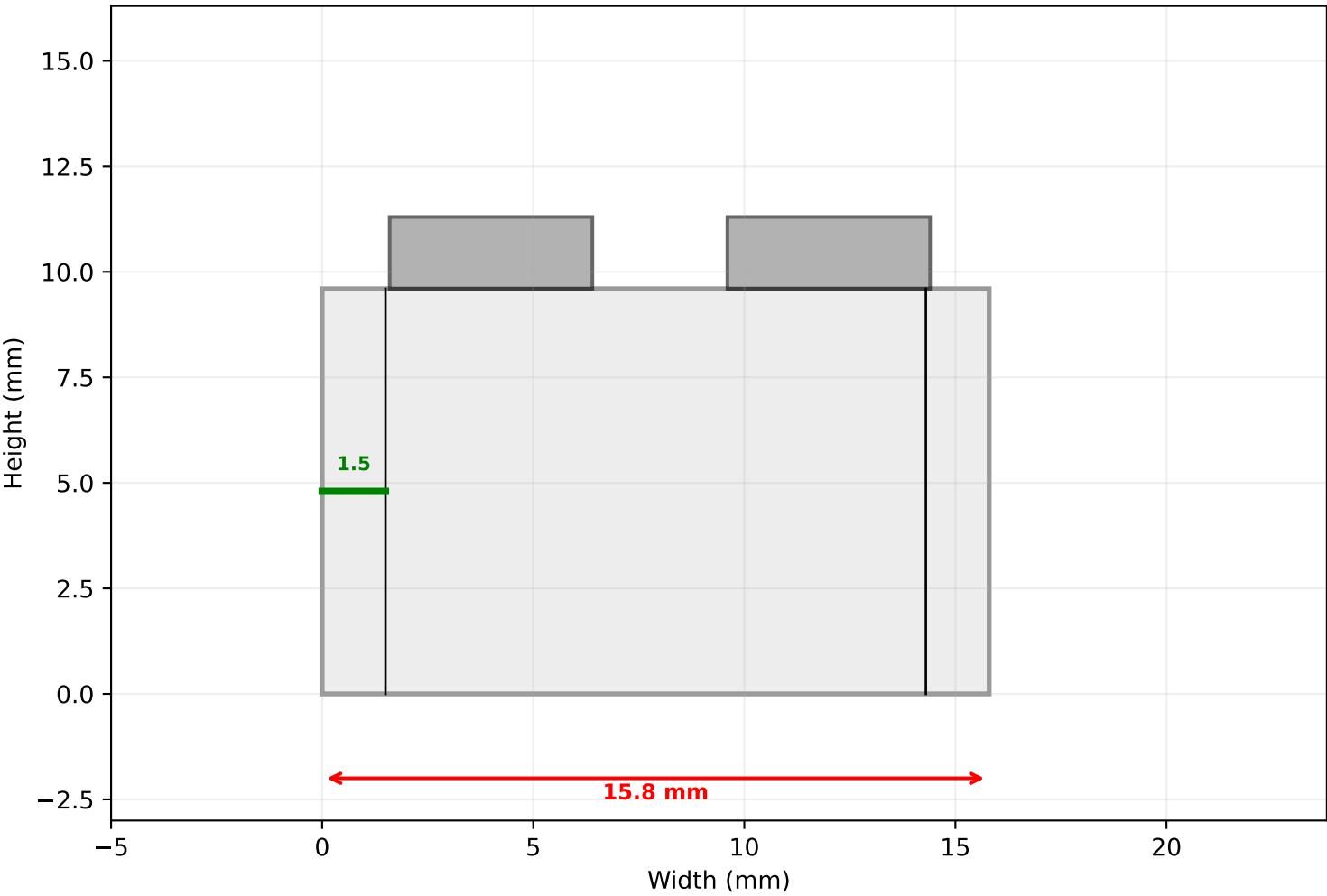
TOP VIEW



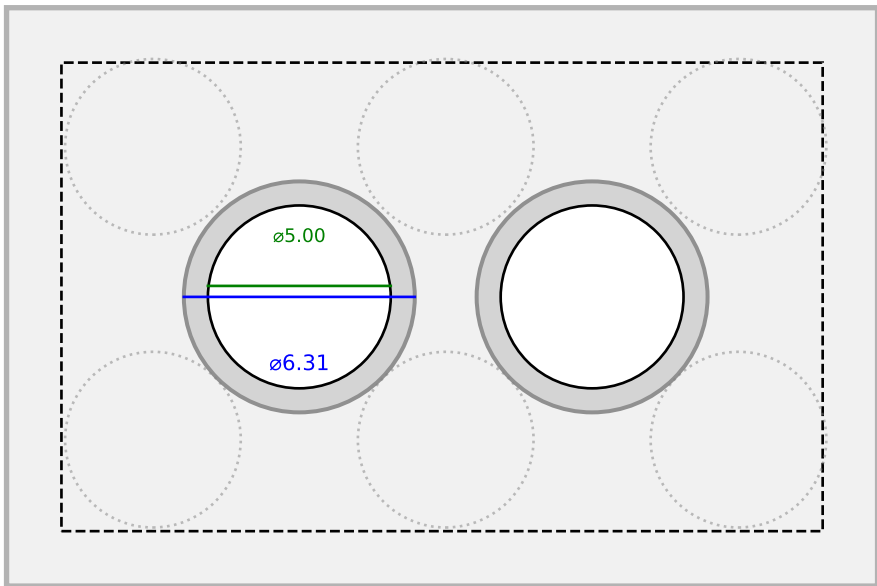
FRONT VIEW (3-stud side)



SIDE VIEW (2-stud side)



BOTTOM VIEW



Tubes (solid cylinders) support studs from above

DIMENSION SUMMARY

| COMPONENT | DIMENSION | VALUE (mm) |
|---------------------|------------------|--------------------|
| Overall Length | 3 studs | 23.8 |
| Overall Width | 2 studs | 15.8 |
| Total Height | body + stud | 11.299999999999999 |
| Brick Body Height | | 9.6 |
| Stud Diameter | | 4.8 |
| Stud Height | | 1.7 |
| Stud Spacing | center-to-center | 8.0 |
| Wall Thickness | | 1.5 |
| Tube Outer Diameter | | 5.00 |
| Tube Wall Thickness | | 0.657 |
| Tube Inner Diameter | | 6.31 |

NOTES:
• All dimensions based on standard LEGO brick specifications
• Manufacturing tolerance: ± 0.1 mm
• Actual bricks 0.2mm smaller than theoretical to allow proper fit
• 2x3 brick has 2 internal support tubes
• Tubes prevent distortion and provide clutch power
• Material: ABS plastic (Acrylonitrile Butadiene Styrene)
DIMENSIONAL RELATIONSHIPS:
• 1 unit = 1.6 mm
• Stud spacing = 5 units = 8 mm
• Brick height = 6 units = 9.6 mm
• Plate height = 2 units = 3.2 mm
• Height to width ratio = 6:5

CROSS-SECTION (lengthwise through center)

