

Middle School Design Brief

2020 3D Printing Competition

Objective:

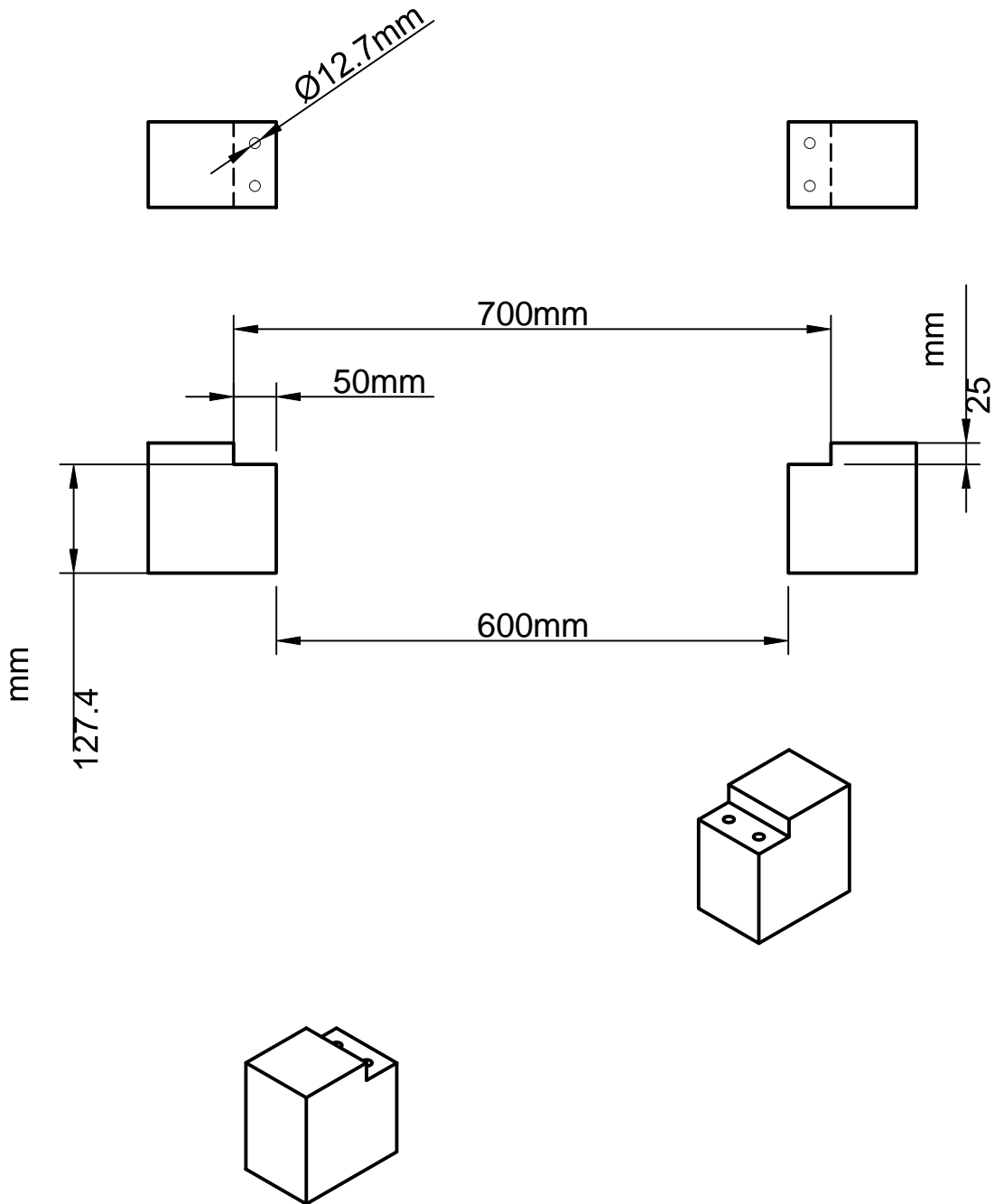
Middle School students will compete as a group to design and make a bridge. Technical drawings of all parts and assembly must accompany the device.

The bridge will start with 10lb of weight. The weight will be increased incrementally until failure. The bridge that can hold the most weight at time of failure will be declared the winner.

The attached drawing and specifications of the bridge test setup that will be used the day of competition is included in this brief on the following page.

Constraints:

- Parts can only be manufactured using a 3D printer
- No rubber bands, string, springs, mechanical fasteners, or other non-3D printed parts can be used on the bridge
- The bridge's total weight may not exceed 2000 grams
- At no time may any part of the bridge touch the ground
- The bridge must span the 600mm gap between bases ● All drawings must follow the following specifications
 - Drawn in CAD
 - Orthographic drawings of the full bridge and components
 - List all measurements of individual parts
 - Printed on 8.5" x 11" paper



Dept. AMT	Technical reference Cole Goldstein	Created by Cole Goldstein 10/1/2019	Approved by Johnson College 10/1/2019	
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