

# Tower Building Template and Guide

## Division B 2016-2017

Based on rules as of 7/26/2016

General instructions for building a bridge to span a 20 cm by 20 cm opening. Bonus points can be obtained by redesigning this design to span a 29 cm circle. See rules.

- Print out template and verify the reference square measure 5 cm in both directions
- Tape together template pieces. The tower should measure at least 50.3 cm tall, 4.8 cm at top and 15.5 cm at bottom (14.9 cm on inside of bottom).
- Pin or glue template to flat foam building board, cover with wax paper if you wish
- Build 2 sides:
  - Long members: Cut two (2) - 3/16" x 3/16" pieces. Use pins to hold the pieces in place on the template.
  - Horizontal cross members: Cut 1/8" x 1/8". Glue in place.
  - Diagonal cross members: Cut 1/8" x 1/8". Glue in place.
  - When dry, remove sides from board. Clean-up and remove excess glue
  - Make 2 sides
- Set 2 sides on template in a vertical orientation so one Long member is on the template (on the Long member line) and one Long member is in the air. Pin in place and add:
  - Cross members: Cut 1/8" x 1/8". Glue in place.
  - Diagonal cross members: Cut 1/8" x 1/8". Glue in place.
- When dry, turn Tower over and repeat previous step
- When dry, remove excess glue
- Test Tower!!

