

# SWISS SAMPE Chapter Bridge Building Contest 2019

# Introduction

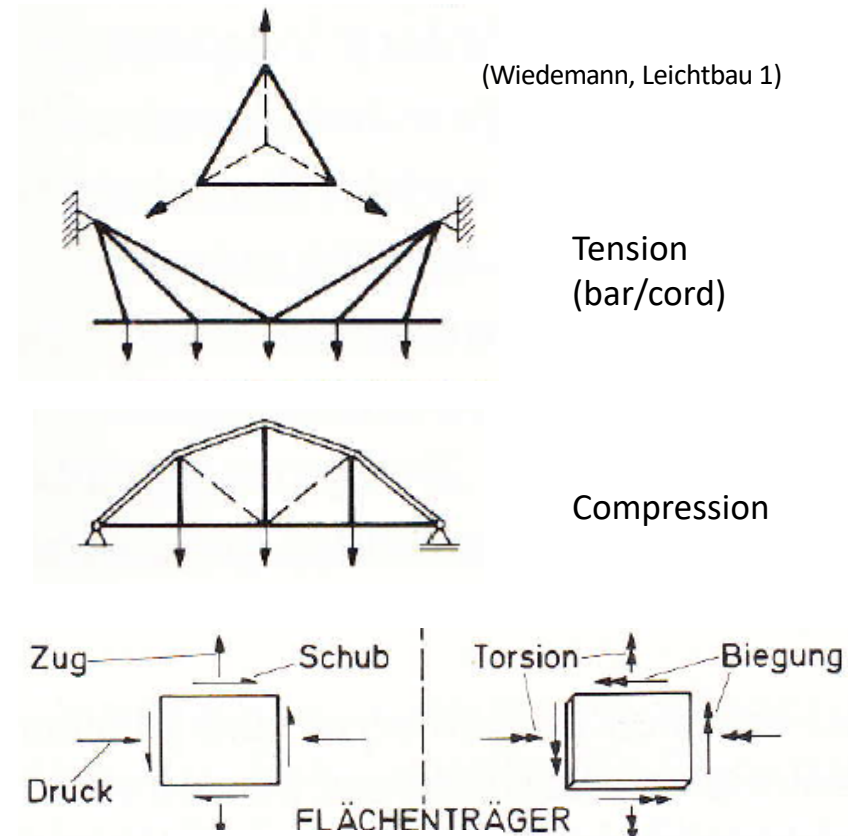


- Contest for Bachelor-, Master- and PhD-students to form teams for a mini-project: plan, build and test a lightweight bridge
- Teams with 2-5 members will spend maximum 2-3 days for the design, optimization and manufacture of the bridge (including the test day).
- The span length of the bridge is 0.5m, and it should be as «strong and light» as possible. The final test is carried out using a 3-point-bending device.
- Additionally, all teams introduce their work with a poster and a short presentation.
- The evaluation is done based on stiffness and strength, originality/design, poster and presentation.
- All teams are supported by a coach (to be defined by the teams, from their institution)
- The contest (bridge test) will take place on January, 24<sup>th</sup> 2019, at IKT / FHNW in Brugg Windisch.

# Materials

All teams will get a construction kit, containing:

- Glass and carbon fibre tubes (inner  $\varnothing 2.5\text{mm}$ , outer- $\varnothing 4\text{mm}$ ), 6m each
- Carbon fibre profiles 4 x 1.1mm, 10m
- Glass fiber plate (0.3mm, 600 x 100mm for driving surface)
- Epoxy 2K adhesive (10min, 480g)



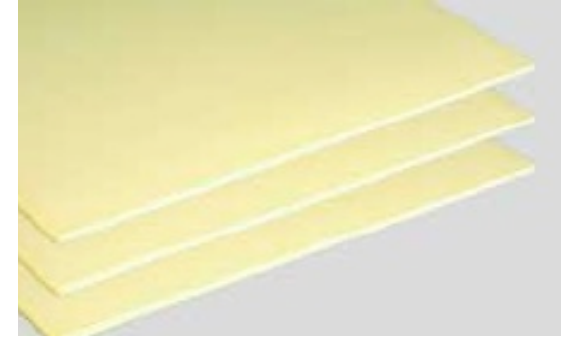
# Elements in kit



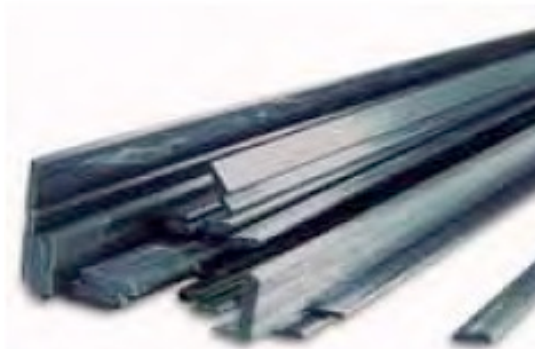
Carbon tubes



Glass tubes



Glass fiber plate



Carbon profiles

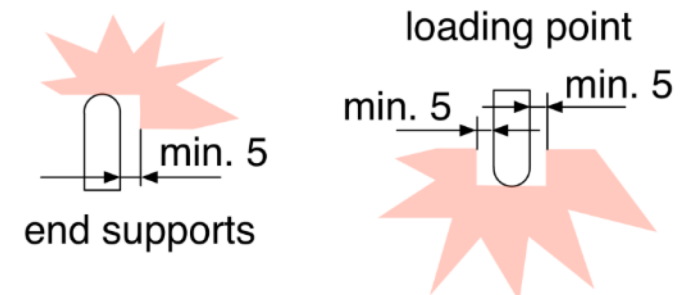
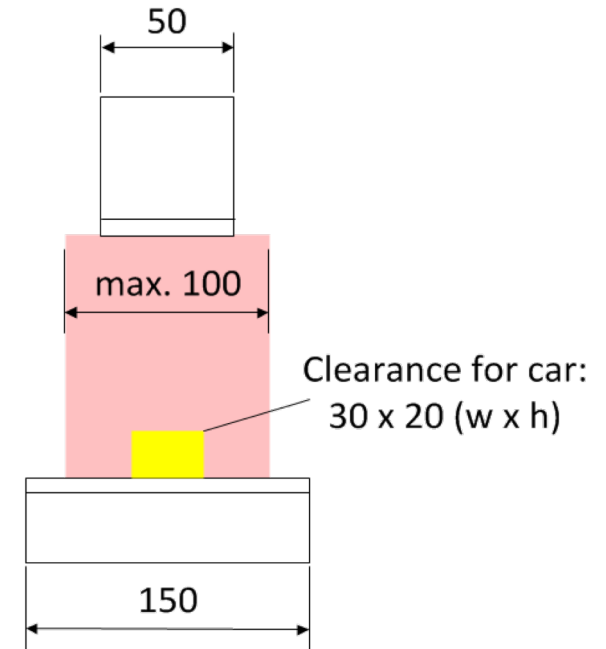
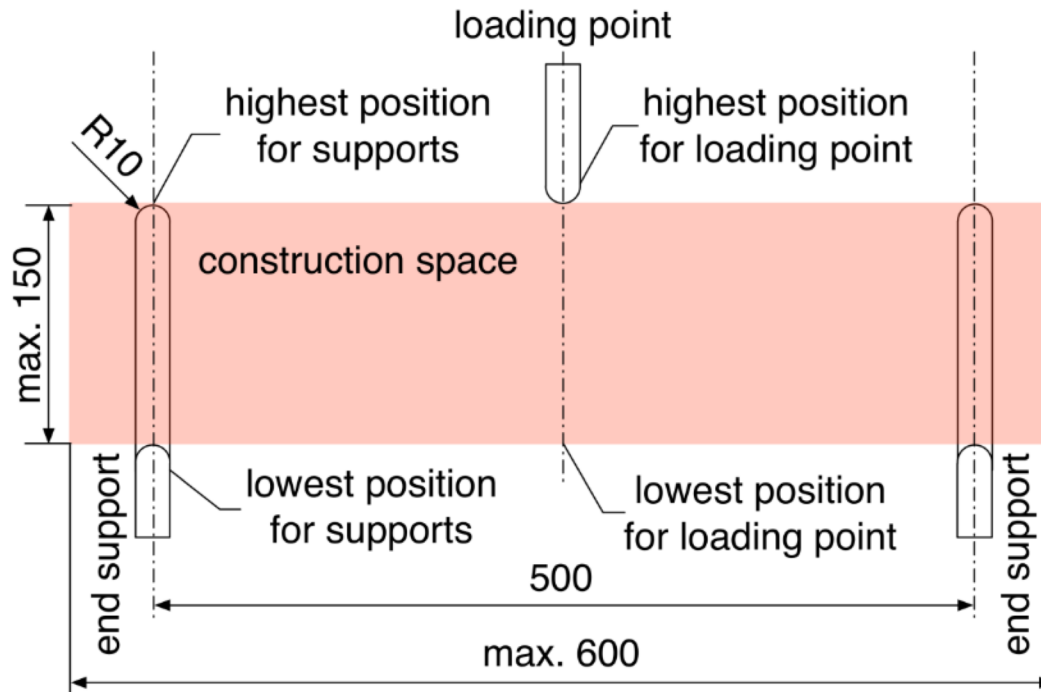


2K Epoxy

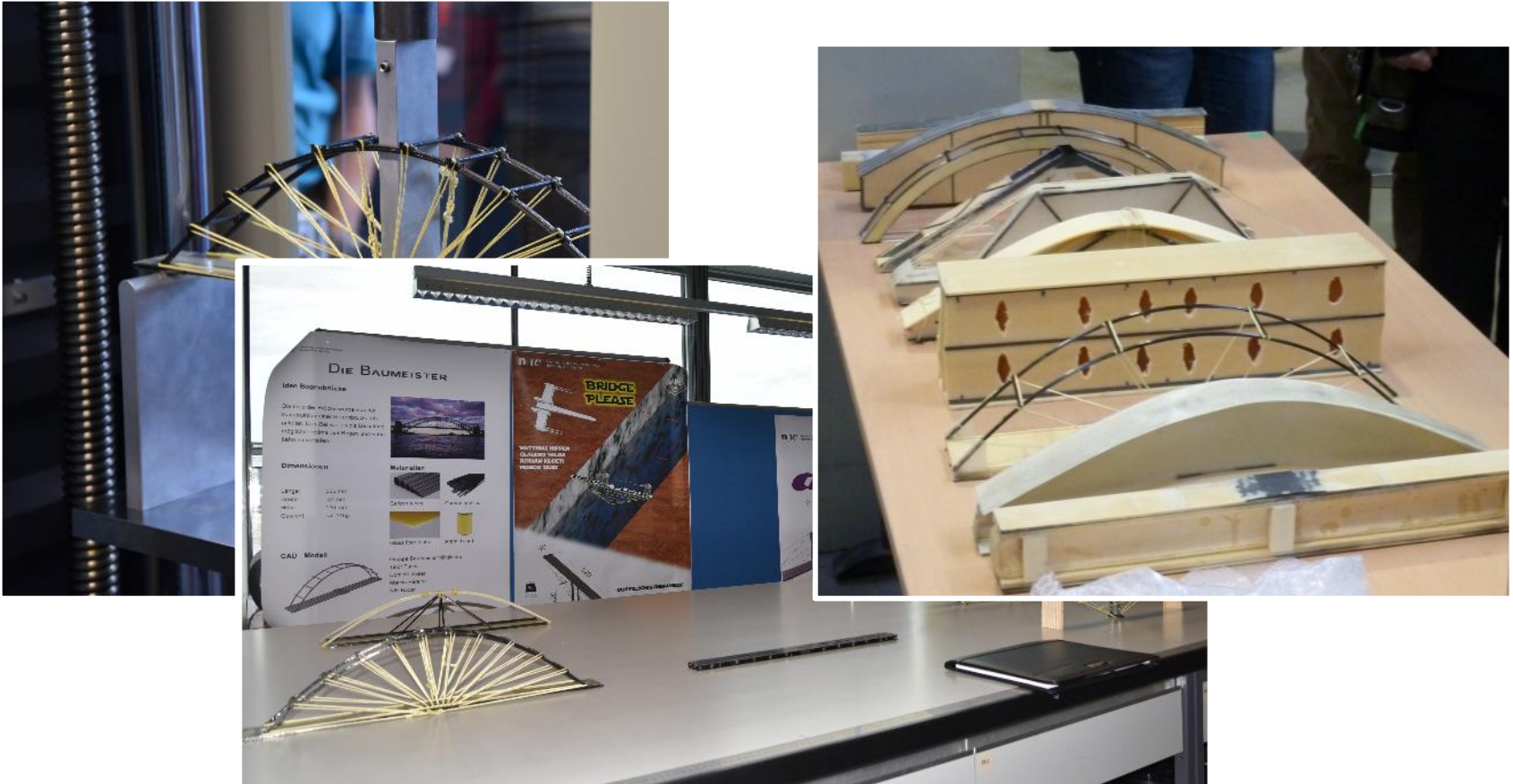


Tools (not provided)

# Evaluation



# Pictures



Impressions from last year: <https://youtu.be/o9Zs3vLmveo>

# Information



- Swiss SAMPE chapter Homepage, [www.sampe.ch](http://www.sampe.ch), see «Events»
- Flyer  
Available on the Swiss SAMPE Chapter homepage as well
- Hochschule für Technik Rapperswil / IWK  
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+41 55 222 47 79  
building 1 / room 1.105
- Registration of teams: send an email to the address above until Monday, 15th October 2018.