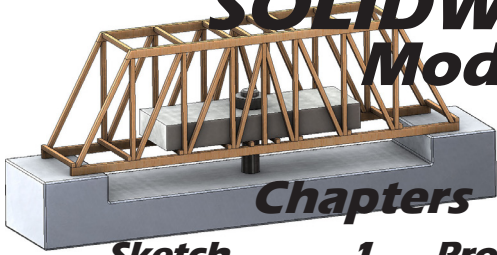


# SOLIDWORKS 2018 TUTORIALS

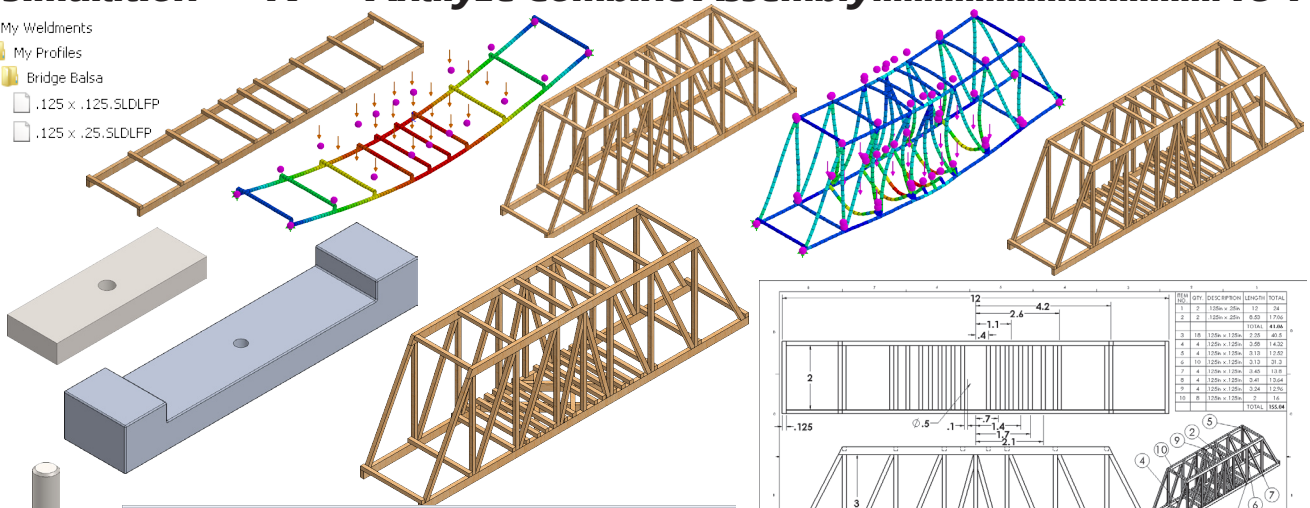
## Model Bridge Structural Analysis

### Table of Contents



<b>Chapters</b>		<b>Page</b>
<b>Sketch</b>	<b>1</b>	<b>Profile .125 x .125 and .125 x .25 ..... 1-1</b>
<b>Part</b>	<b>2</b>	<b>Simple Span ..... 2-1</b>
<b>Excel</b>	<b>3</b>	<b>Excel Set-Up ..... 3-1</b>
<b>Simulation</b>	<b>4</b>	<b>Analyze Simple Span ..... 4-1</b>
<b>Part</b>	<b>5</b>	<b>Bridge Joints ..... 5-1</b>
<b>Simulation</b>	<b>6</b>	<b>Analyze Bridge Joints ..... 6-1</b>
<b>Part</b>	<b>7</b>	<b>Add Floor Beams..... 7-1</b>
<b>Simulation</b>	<b>8</b>	<b>Analyze Bridge Add Floor Beams..... 8-1</b>
<b>Part</b>	<b>9</b>	<b>Add Bottom Lateral Bracing ..... 9-1</b>
<b>Simulation</b>	<b>10</b>	<b>Analyze Bridge Lateral Bracing ..... 10-1</b>
<b>Drawing</b>	<b>11</b>	<b>Drawing with Cut List ..... 11-1</b>
<b>Part</b>	<b>12</b>	<b>Base ..... 12-1</b>
<b>Part</b>	<b>13</b>	<b>Block 3/4 x 2 x 6..... 13-1</b>
<b>Part</b>	<b>14</b>	<b>Rod 1/2" ..... 14-1</b>
<b>Toolbox</b>	<b>15</b>	<b>Nut ..... 14-1</b>
<b>Assembly</b>	<b>16</b>	<b>Crusher Assembly ..... 15-1</b>
<b>Simulation</b>	<b>17</b>	<b>Analyze Joints Assembly ..... 16-1</b>
<b>Part</b>	<b>18</b>	<b>Bridge Combine ..... 17-1</b>
<b>Simulation</b>	<b>19</b>	<b>Analyze Combine Assembly..... 18-1</b>

- My Weldments
- My Profiles
- Bridge Balsa
  - .125 x .125.SLDLFP
  - .125 x .25.SLDLFP



Bridge Data							
Configuration	Current Force	Current FOS	Safe Force per Item	Force Items	Total Load (lbs.)	Structure Mass	Efficiency
3 Simple Span	0.700	0.788	0.552	6	3.310	2.889	5.20
4 Bridge Joints	1.500	3.229	4.844	6	29.061	8.890	14.84
5 Floor Beams	4.844	0.977	4.249	14	59.476	0.620	29.03

