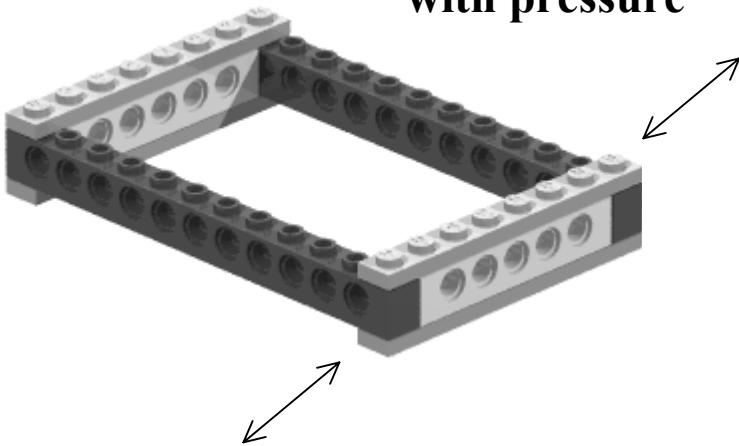


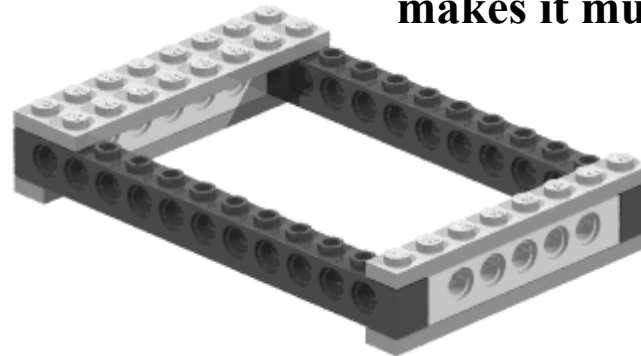
Frames

- **Robots need a frame**

**This one twists
with pressure**

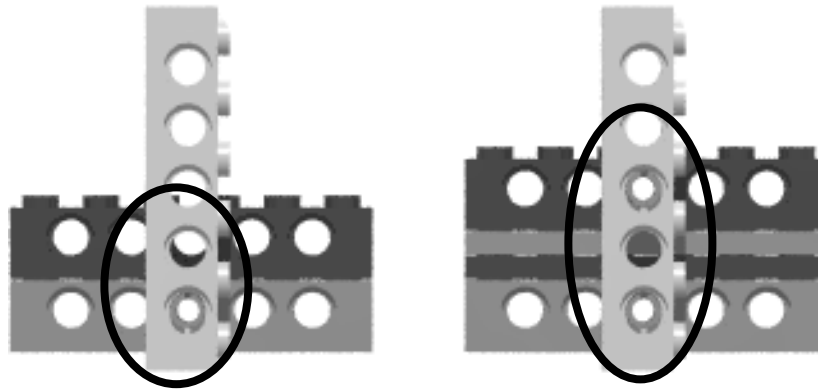


**Replacing the 1x8
plate with a 2x8 plate
makes it much stiffer**



- **Text has an example of making this frame even sturdier**

Cross Bracing



**To brace,
remember, 1
beam and 2
plates!!**

- In the assembly on the left, the 1x6x1 beam is 1.2 studs high, which causes a problem when simply stacked. The cross brace beam holes do not line up.

- In the assembly on the right, 2 1x6 plates are added, the holes align perfectly. This is because a beam and 2 plates are exactly 2 studs apart ($1.2 + .4 + .4 = 2$ studs).