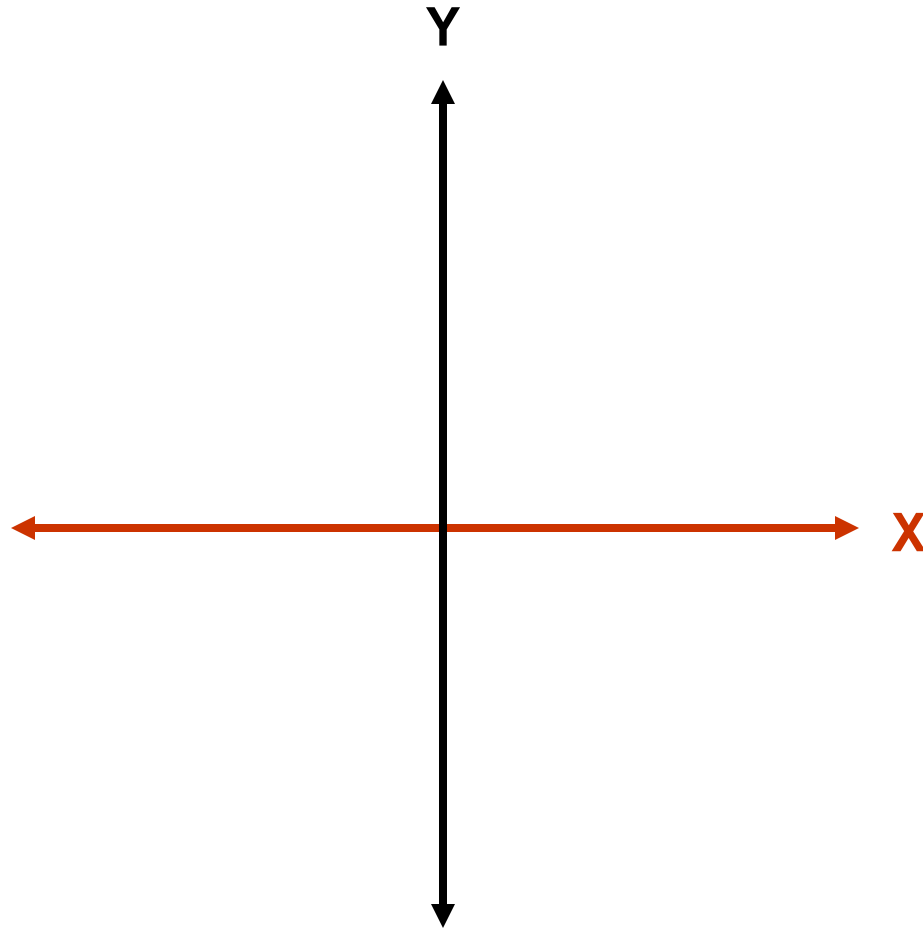


What is the REAL Error?

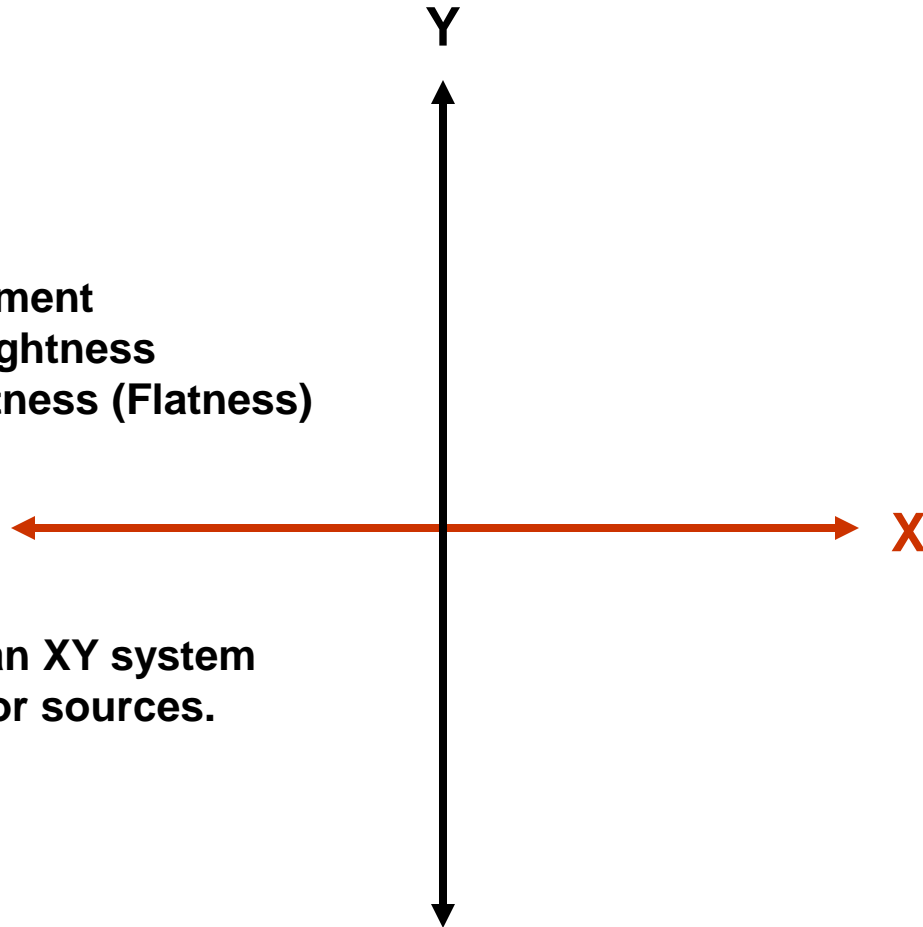


What is the REAL Error?

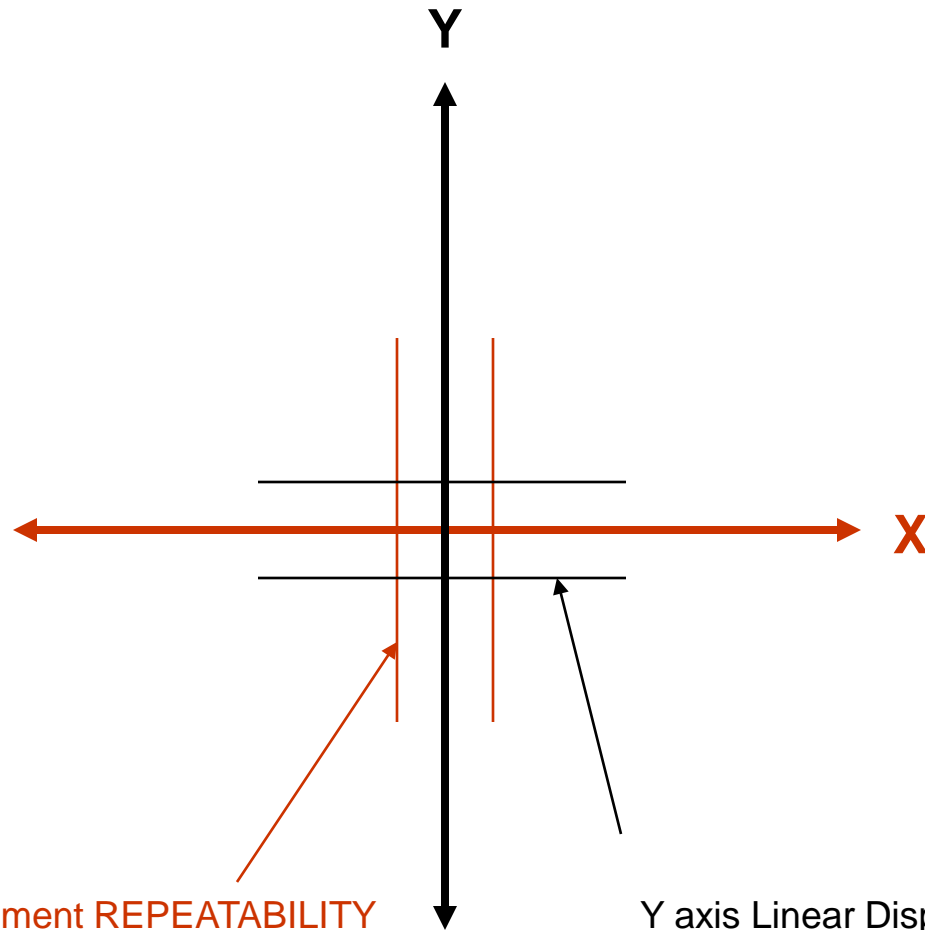
6 DOF Error

1. Linear Displacement
2. Horizontal Straightness
3. Vertical Straightness (Flatness)
4. Pitch
5. Yaw
6. Roll

AND therefore in an XY system
there are 12 error sources.



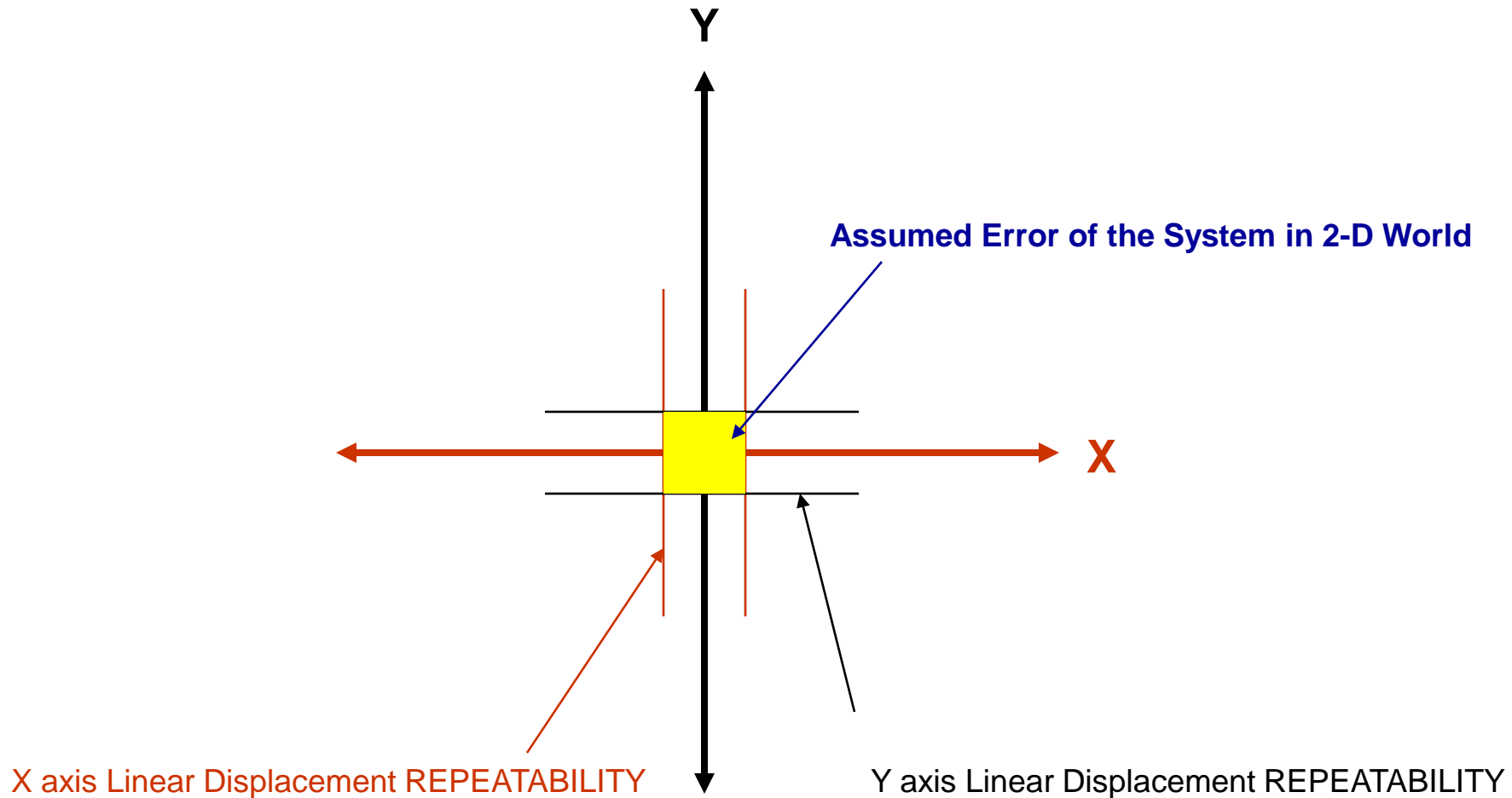
What is the REAL Error?



X axis Linear Displacement REPEATABILITY

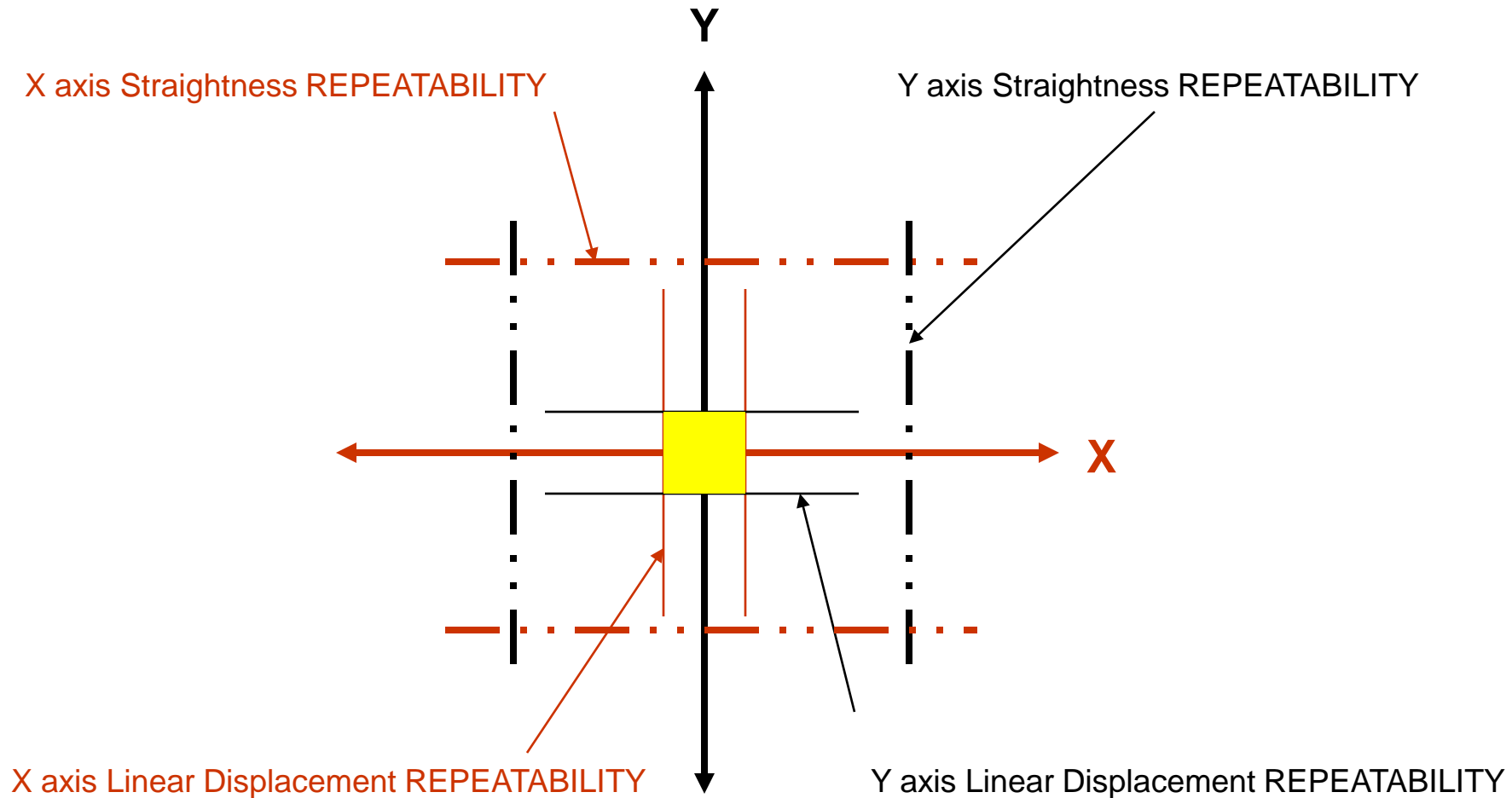
Y axis Linear Displacement REPEATABILITY

What is the REAL Error?



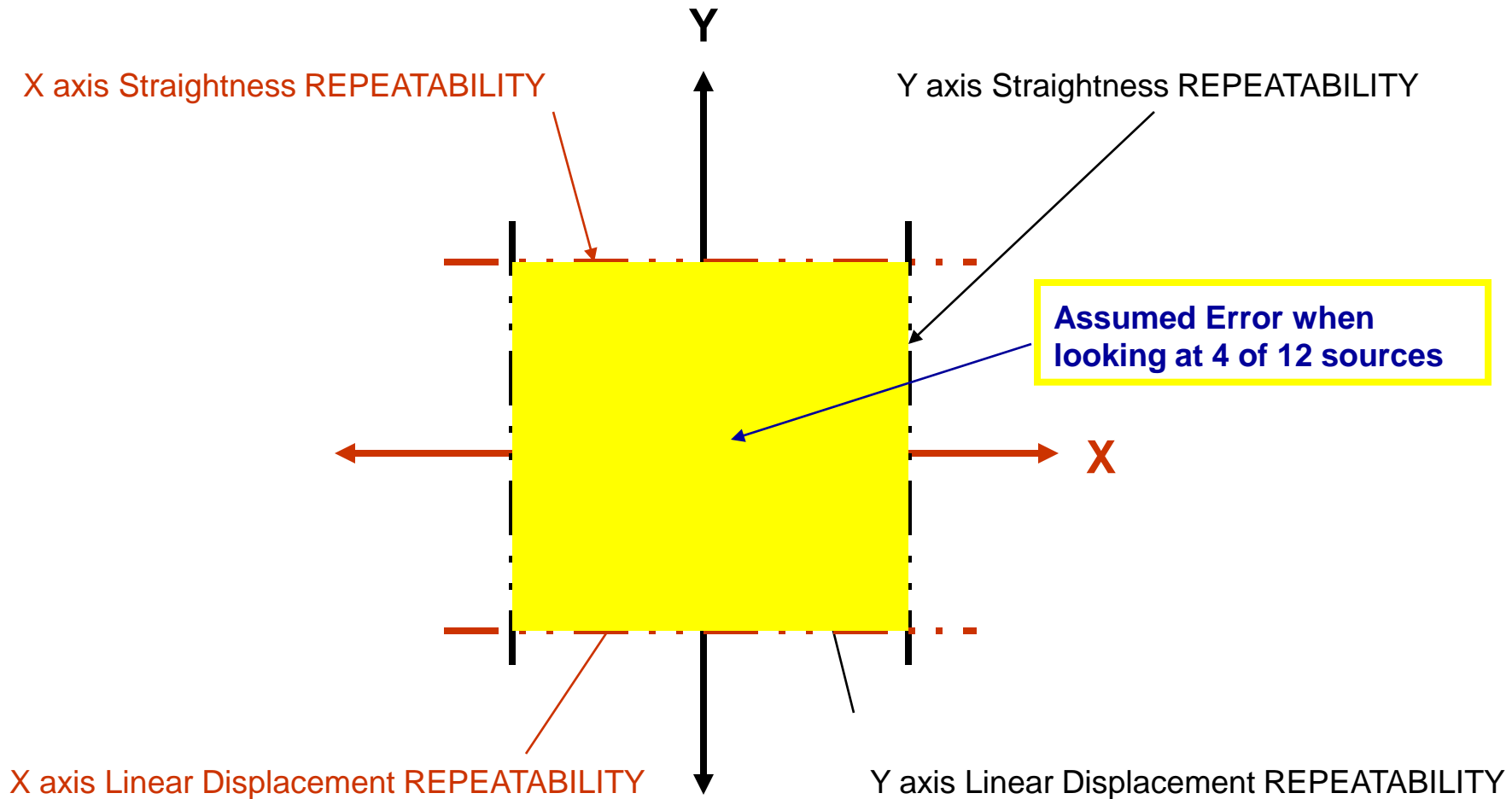
Many stage vendors will sell this as the performance. Be careful, this is a fraction of the story.

Add in ONE more dimension of error



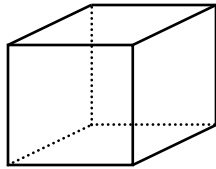
This is from an actual real world customer situation using a competitive product.

What is the REAL Error?



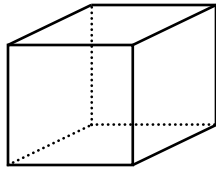


When all 6 DOF Error Sources are Included...

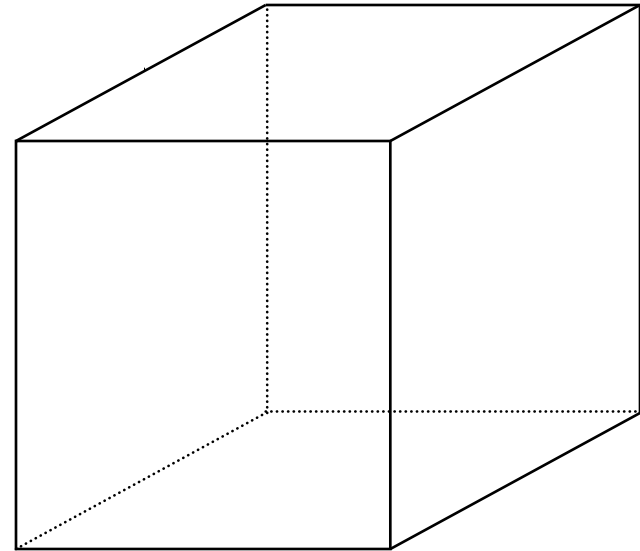


What you think you are getting

When all 6 DOF Error Sources are Included...



What you think you are getting



...is actually a lot larger error.