As a student in the video pointed out, the dot product equaling zero means that the vectors $C(v) - C(w)$ and $d(v) - d(w)$ are perpendicular. However, you said you had trouble visualizing $d(v) - d(w)$. 
How can you say the tensegrity you showed is rigid when you can perturb it like that? What part of the model was breaking down in real life?

Why use springs to build bars?
I liked the part about tensegrities as actual sculptures.
“V-X”, 1968
stainless steel
10′ × 14′ × 14′

“T-Zone Flight”, 1995
stainless steel
16′ × 49′ × 30′

“Triple Crown”, 1991
stainless steel
43′ × 85′ × 78′

Kenneth Snelson
“Wing I”, 1992  
7’ × 10’ × 12’

“Rainbow Arch”, 2001  
7’ × 13’ × 3’

“Sleeping Dragon”, 2003  
10’ × 72’ × 16’

“Needle Tower II”, 1969  
90’ × 18’ × 18’

Kenneth Snelson
“Tensegrity Bunny”
Tomohiro Tachi
2012

http://www.flickr.com/photos/tactom/7564732824/
Freeform Tensegrity  
Tomohiro Tachi 
http://youtu.be/6ZUhPKU0ePk