

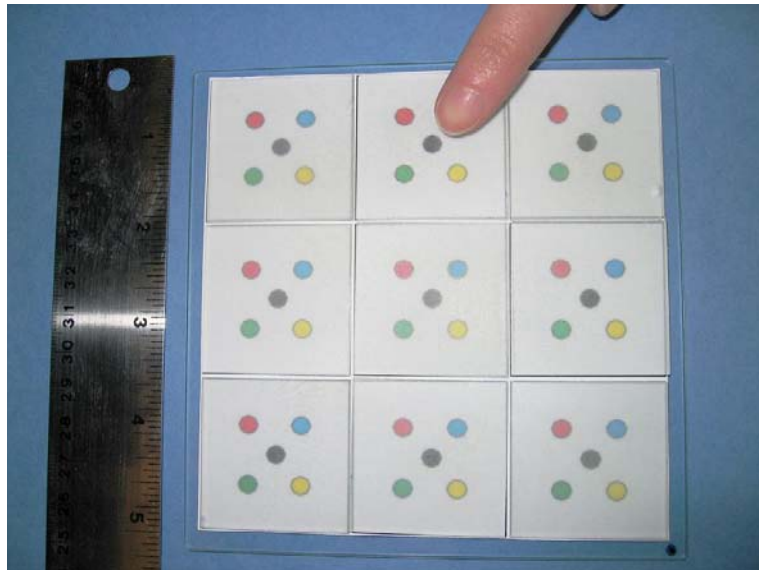
Manufacture of a Medical Device to Measure Touch Sensation in Feet and Hands

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- The “BUMPS” is a medical device to quantify touch sensation on finger and toe pads.
- Subjects rub a finger over 5 colored circles to locate a tiny particle (Bump), one particle per square.
- The device is produced at the U of MN NTC supervised by Greg Cibuzar.
- Over 100 normal and diabetic subjects have been tested as proof of concept.
- Collaborative agreements exist to test more diabetic patients in MN and cancer patients with chemotherapy neuropathy at the M.D. Anderson Cancer hospital in Houston, TX
- -Two NIH grant proposals were submitted. A patent is pending.
- -Fingertip skin biopsies from TX patients are processed by the U of MN Kennedy lab to correlate physiological results from Bumps tests with structural changes of the Meissner receptor organs (photo).

Bumps test



Meissner receptor organs

