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Workplan – Lab 5
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Two-Point Discrimination

1. The subject should close his/her eyes
2. The examiner should start the tips of the caliper bristles at 80 mm apart
3. The bristles should be touched to the back of the subjects hand
4. It should be recorded if the subject feels the bristles or not
5. Reduce the spacing by 10 mm and repeat steps 1-4
6. The two-point threshold distance is found when the subject can detect the bristle consistently
7. Switch roles and replace

Tactile Localization

1. Subject should be seated, motionless, with eyes closed
2. Position the bristle over a selected point on the palm
3. Have the subject open his/her eyes and the subject touches the spot they believe was touched
4. Measure and record the distance in mm between the spot and the believed spot
5. Repeat steps 2-4 three times and calculate average error
6. Repeat for fingertip and inside of the forearm
7. Switch roles

Mapping Temperature Receptors

1. Tester should remove a probe from the cold sand and hold onto it by the insulated handle
2. Make sure the probe is dry and has no sand on it
3. Touch quicker than one second to the ventral surface of the lower arm
4. Note the precise location of the cold reported as a reference point
5. Replace the probe in the cold sand
6. Make a matrix like array of tiny dots around the reference point
7. Points should be about 1 mm apart
8. Touch the point to confirm cold sensitivity
9. Determine the spatial limits of cold sensitivity for one cold point

Estimating Cold Density Points

1. Subject uses one arm to write with while the other is held motionless
2. Cut a 2x3” rectangle of drywall tape
3. Using a broad-tipped permanent marker outline the boundary of the tape
4. Outline the boundaries for an 8x8 unit grid as in Appendix D
5. Carefully transfer the drywall tape and transfer it to the ventral surface of the subject’s arm
6. Subject should not move his/her arm
7. Remove the cooled probe from the sand
8. Briefly touch the probe tip to the upper left corner square in the 8x8 grid

9. Record whether cold was felt
10. As quickly as possible, repeat the previous step until all 64 squares are touched

Can the Same Temperature Stimulate Both Cold and Warm Receptors

1. Place the pails in left to right: cold, room, and warm
2. Have subject place one hand in warm and the other in cold for one minute
3. Subject should place both hands in room temp after and report sensation felt
4. Does the sensation change after keeping both hands in room temp water for one minute?