Human Grasping and Manipulation

16-848 Hands: Design and Control for Dexterous Manipulation
Spring 2020
Feix et al. Cumulative Taxonomy
The Feix et al. Taxonomy in 6 Parts
(my personal organization of grasps)
1. Power grasps using the Palmar Gutter

29. Stick

32. Ventral

7. Index Finger Extension

3. Medium Wrap

19. Distal Type

8. Extension Type

4. Adducted Thumb
2. Power grasps using Other Parts of the Palm

- 2. Small Diameter
- 5. Light Tool
- 15. Fixed Hook
- 10. Power Disk
- 30. Palmar
3. Power Grasps with Lateral Stabilization

26. Sphere 4-finger
28. Sphere 3-finger
25. Lateral Tripod
16. Lateral
4. Precision Grasps with Lateral Stabilization

20. Writing Tripod

21. Tripod

23. Adduction Grip
5. Power grasps with Pad Opposition

- 22. Parallel Extension
- 1. Large Diameter
- 11. Power Sphere
- 31. Ring
6. Precision Grasps with Pad Opposition

6. Prismatic 4-finger
7. Prismatic 3-finger
8. Prismatic 2-finger
9. Palmar Pinch

13. Precision Sphere
27. Quadpod
14. Tripod
The rest of the grasps...

12. Precision Disk

6. Prismatic 4-finger

7. Prismatic 3-finger

8. Prismatic 2-finger

9. Palmar Pinch

13. Precision Sphere

27. Quadpod

14. Tripod

24. Tip Pinch

33. Inferior Pincer
Cumulative Taxonomy: My Summary

1. Power grasps using the Palmar Gutter

2. Power grasps using Other Parts of the Palm

3. Power grasps with Lateral Stabilization

4. Precision grasps with Lateral Stabilization

5. Power grasps with Pad Opposition

4. Precision Grasps with Pad Opposition
Feix et al.
Cumulative Taxonomy: My Summary

- Lateral support
- Power palm
- Pad opposition
Here are the packets if you want to take another shot at sorting grasps.