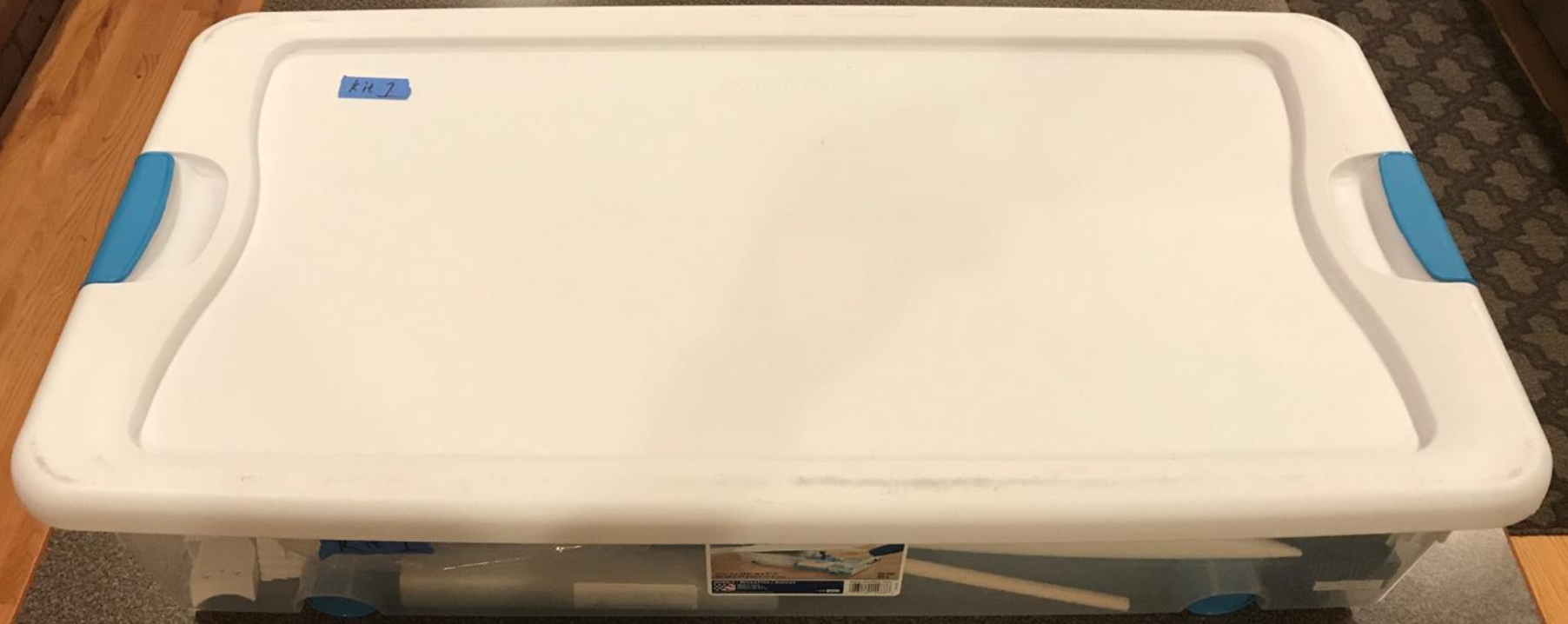
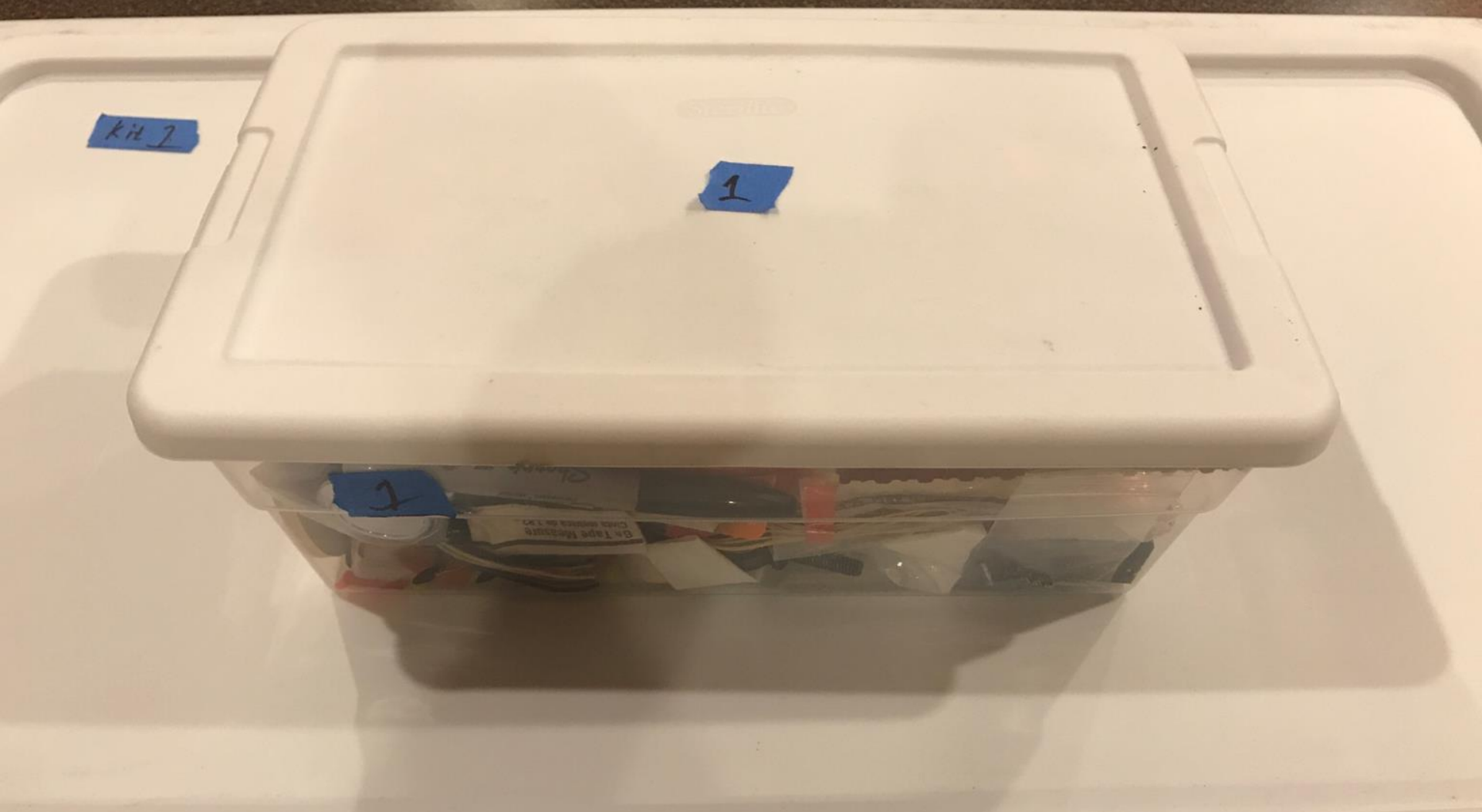


MN Space Grant Consortium (MnSGC)
Remote High-Power Rocketry Lessons
Tote Contents (Photos)
Fall 2017

James Flaten flate001@umn.edu
Associate Director of NASA's MnSGC
U of MN – Twin Cities



1. Large tote



2. Small tote

Starline

Model Rocket Design and Construction

How to create
and build unique
and exciting
model rockets
that work!

Third Edition



by
Timothy S.
Van Milligan

3. Model-rocketry book

Completely Revised

MODERN HIGH-POWER ROCKETRY

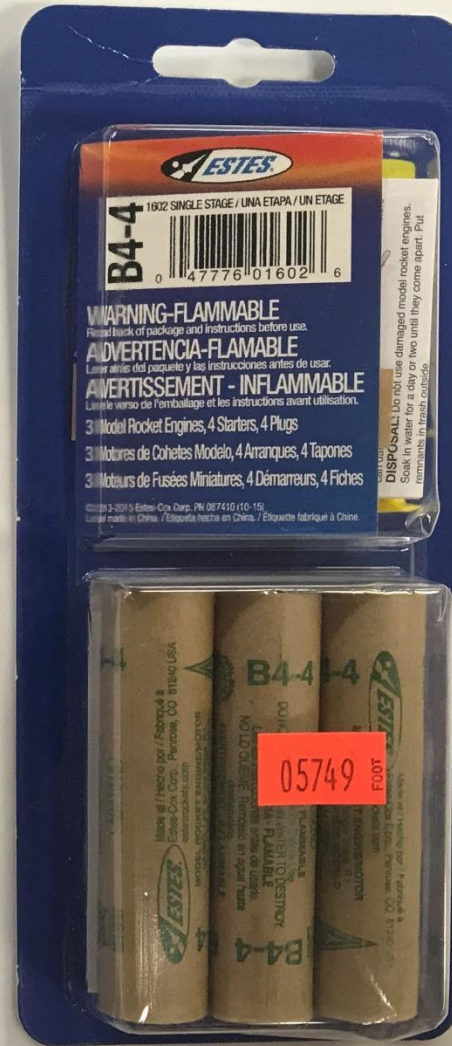
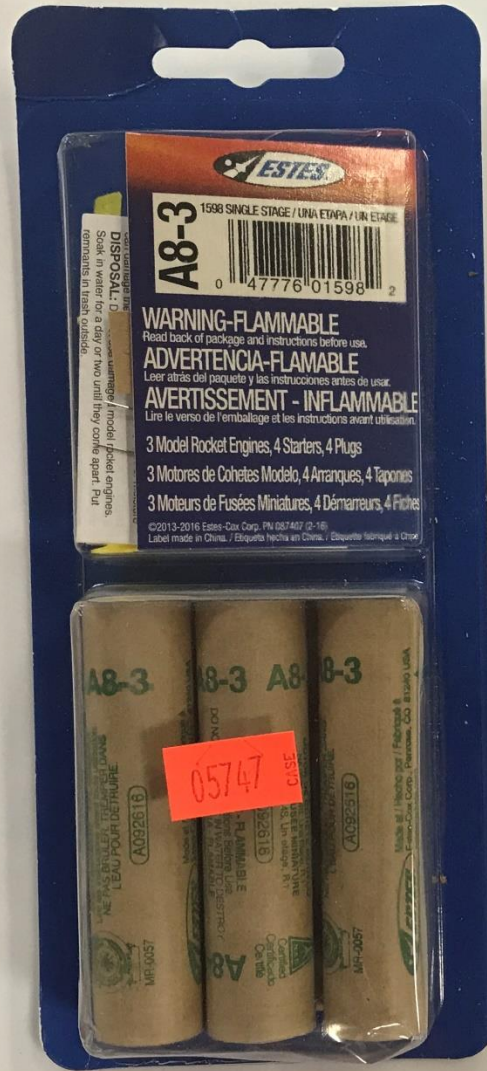
01026 3

2

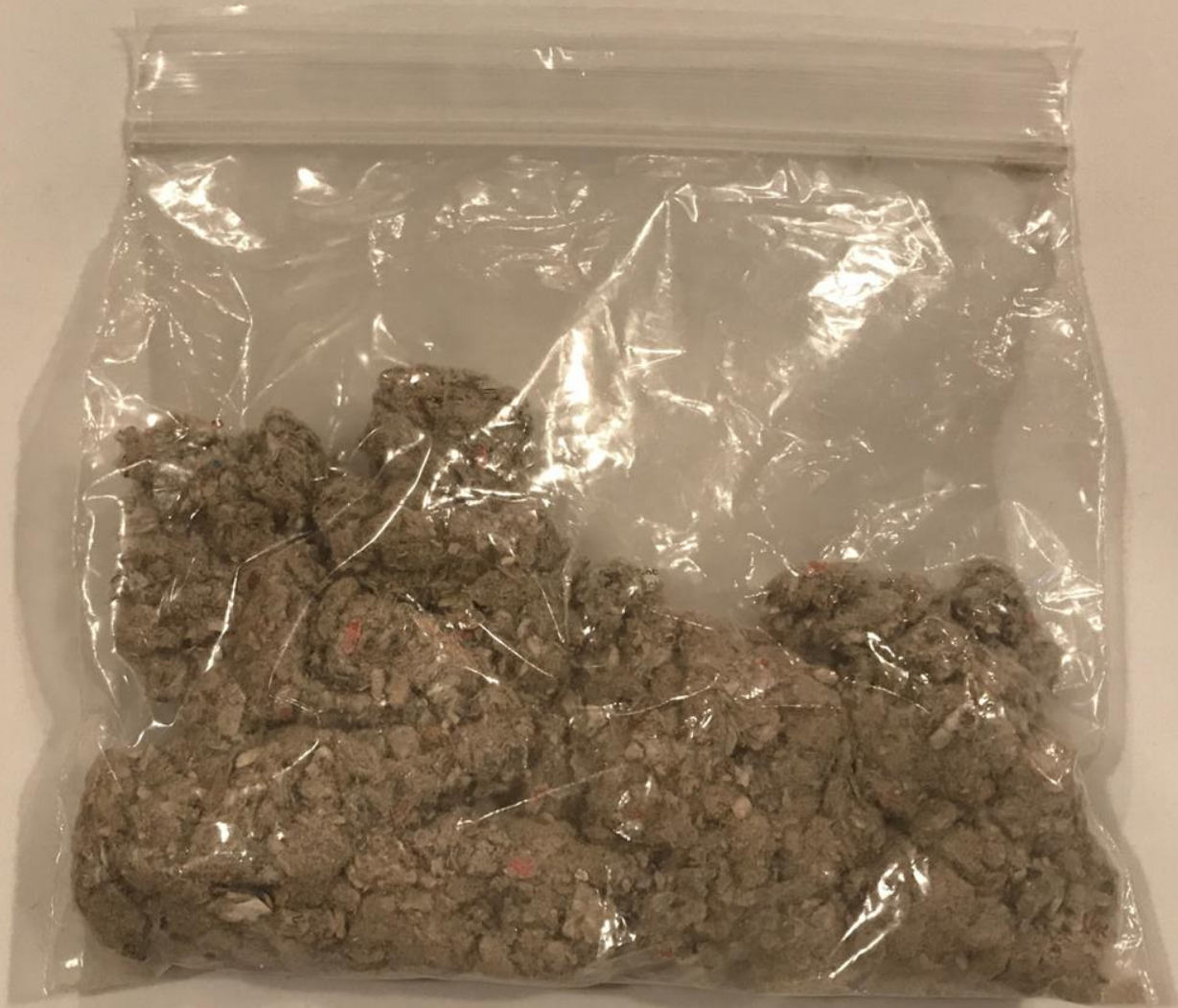
A COMPREHENSIVE
ILLUSTRATED GUIDE
TO BUILDING,
LAUNCHING, AND
RECOVERING
HIGH-POWER
ROCKETS

MARK
CANEPA

4. High-power rocketry book



6. Model rocket motors (two types)



7. "Rocket barf" (instead of wadding)



8. Super glue



9. JB Weld (high-temp epoxy)



10. DP 420 NS “no sag” epoxy tubes

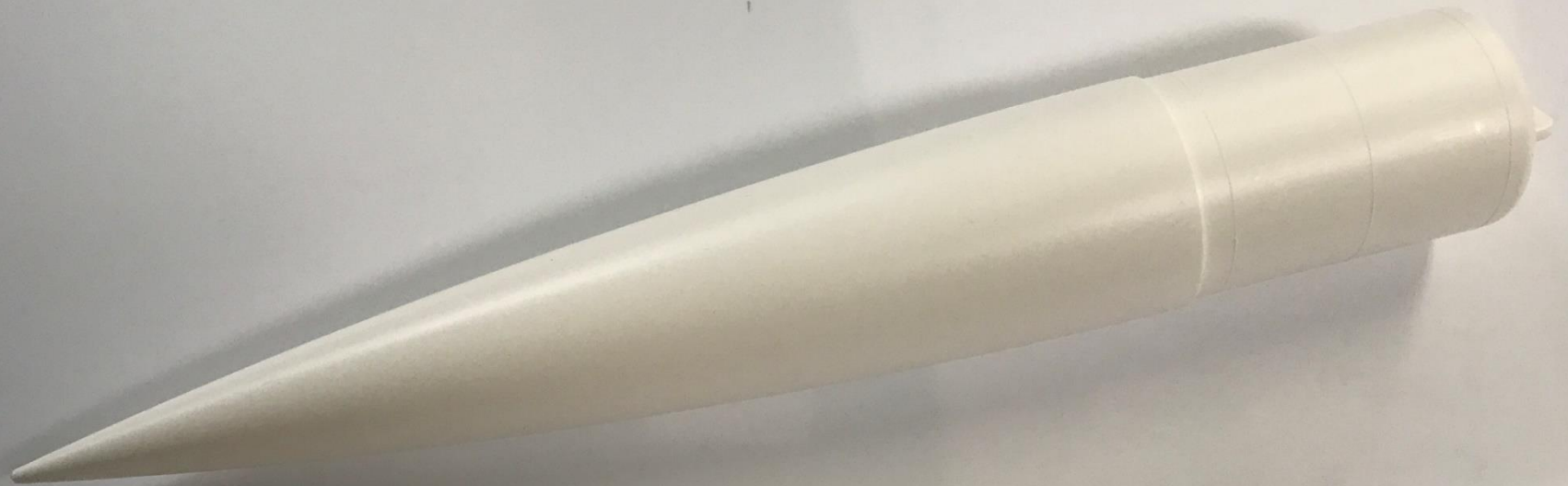
Sterilite



11. Applicator gun for DP 420 tubes

kit 7

Sterilite



12. Nose cone (plastic)

Sterilite



13. Upper airframe tube (Blue Tube)

Sterilite



ARR
ALWAYS READY ROCKETRY

**BLUE TUBE 2.0™
ELECTRONICS BAY
ASSEMBLY INSTRUCTIONS**

Make sure you have all your parts! Any missing parts please contact ARR for replacements.
hardware type, quantity and usage vary slightly with each diameter. The 38mm does not use
nuts. Pictures shown are for the 4 inch.

14. Av-bay (many parts)



14A. Av-bay “sled” (too small)



15. Lower airframe (with fin slots)



16. Fin set and centering ring set



17. Motor-mount tube (38 mm dia)



AERO PAPER

INSTALLATION & USE !
cannot control the use of
assumes no liability.

Tube by supplier and type:

- paper
- Precision paper
- stry fiberglass
- Madcow paper
- Madcow fiberglass
- GLR phenolic, Hawk Mt
- rocketry fiberglass
- ision paper
- nd GLR phenolic,
- nce Rocketry fiberglass
- nd Madcow paper

Fit for othe

24L	= 0.976
29L	= 1.215"
38L	= 1.630"
54P	= 2.278"

18. Motor retainer (two parts)



19. Motor casing (3-grain, 38 mm dia)



20. Recovery harness (12' section)



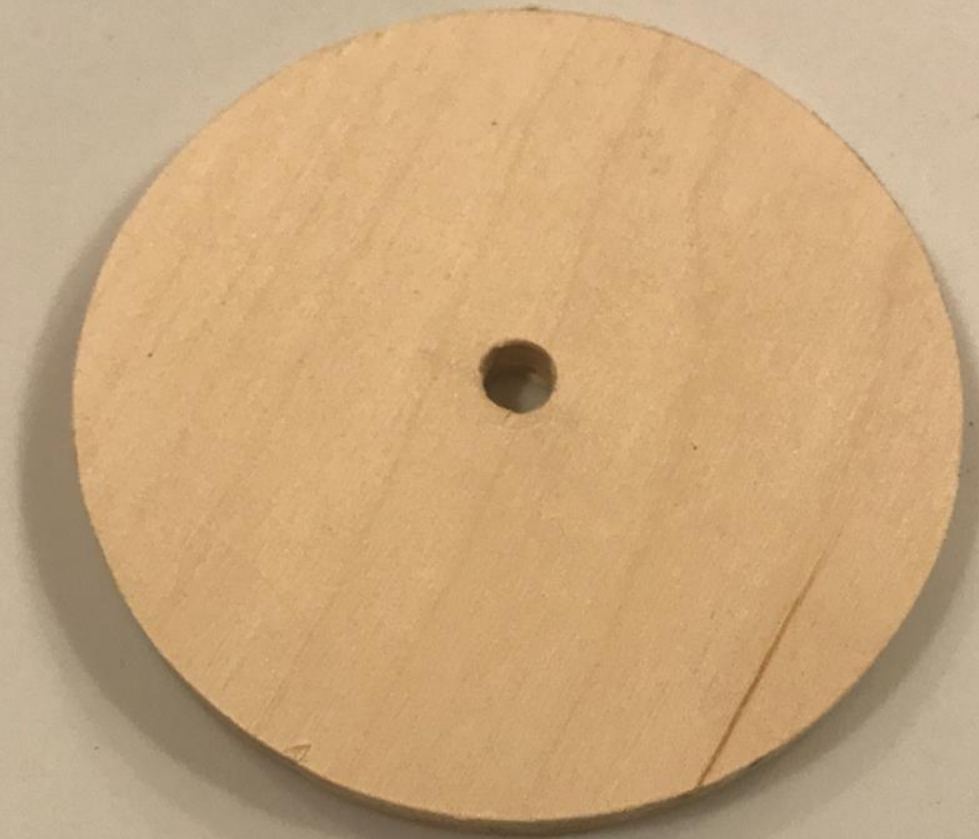
21. Recovery harness (6' section)



22. Piston strap (~3-4' long)



23. Piston body (coupler tubing)



24. Piston bulkplate

Sterilite



25. Main parachute (36" dia)

SUNYARD

Parachute
Red - ROUND Size: **15"**
6 Shroud Lines

Meets
2013 & 2011

Rules

Requirements

29108

Team America
Rocketry Challenge

State of the Art recovery for model rockets and other projects. Reusable.
Machine Washable.
All edges sewn with professional grade Surge Sewing equipment.

Materials:

- Rip-Stop Nylon for added strength and durability.
- Nylon cords.
- Polyester threads.



26. Drogue parachute (15" dia)

Sterilite



27. Large flame protector (12" x 12")



28. Small flame protector (9" x 9")



29. Quick-links



30. Audio siren (type may vary)



31. Forged eyebolts, washers, lock-nuts

jolly logic
ALTIMETERTHREE

The altitude recorder
controlled by
your smartphone or tablet



32. Altimeter Three (data logger)



33. Raven3 altimeter (for av-bay)



34. Screw switch



35. Battery mount



36. Caps (for ejection charges)



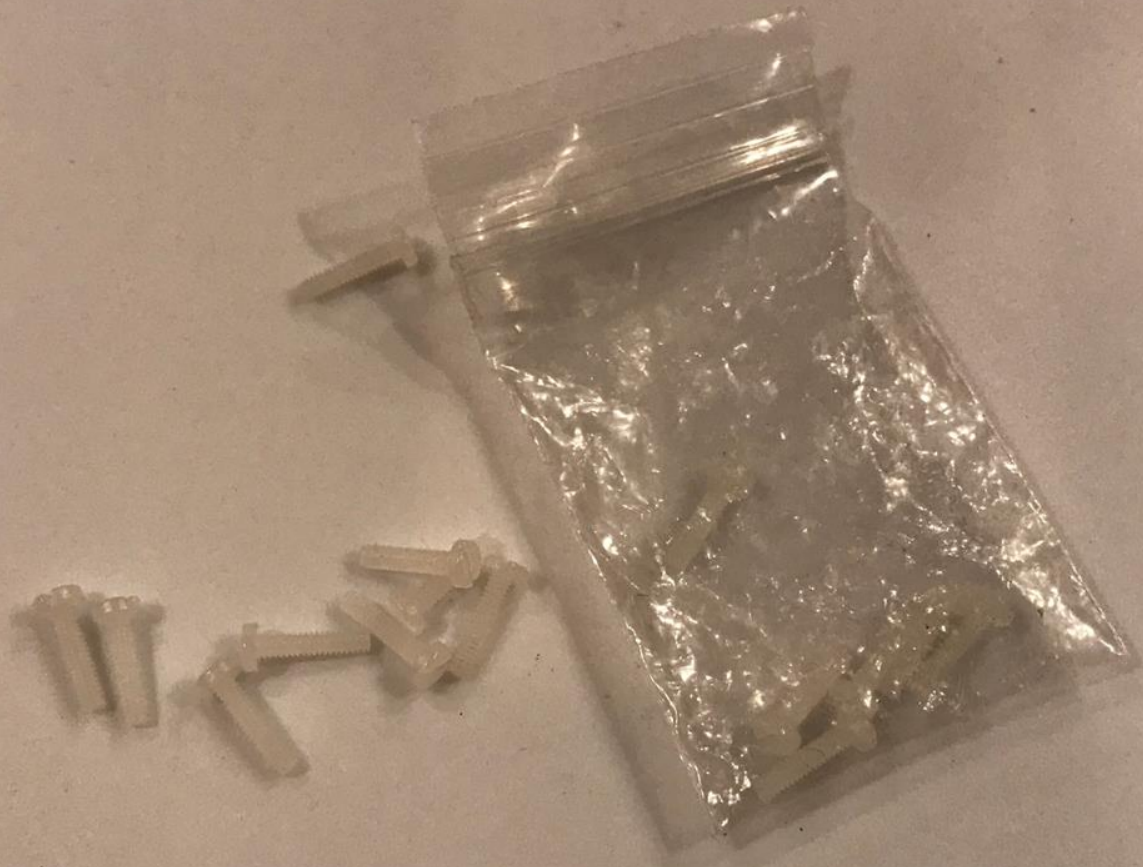
37. Rail buttons (10-10 size)



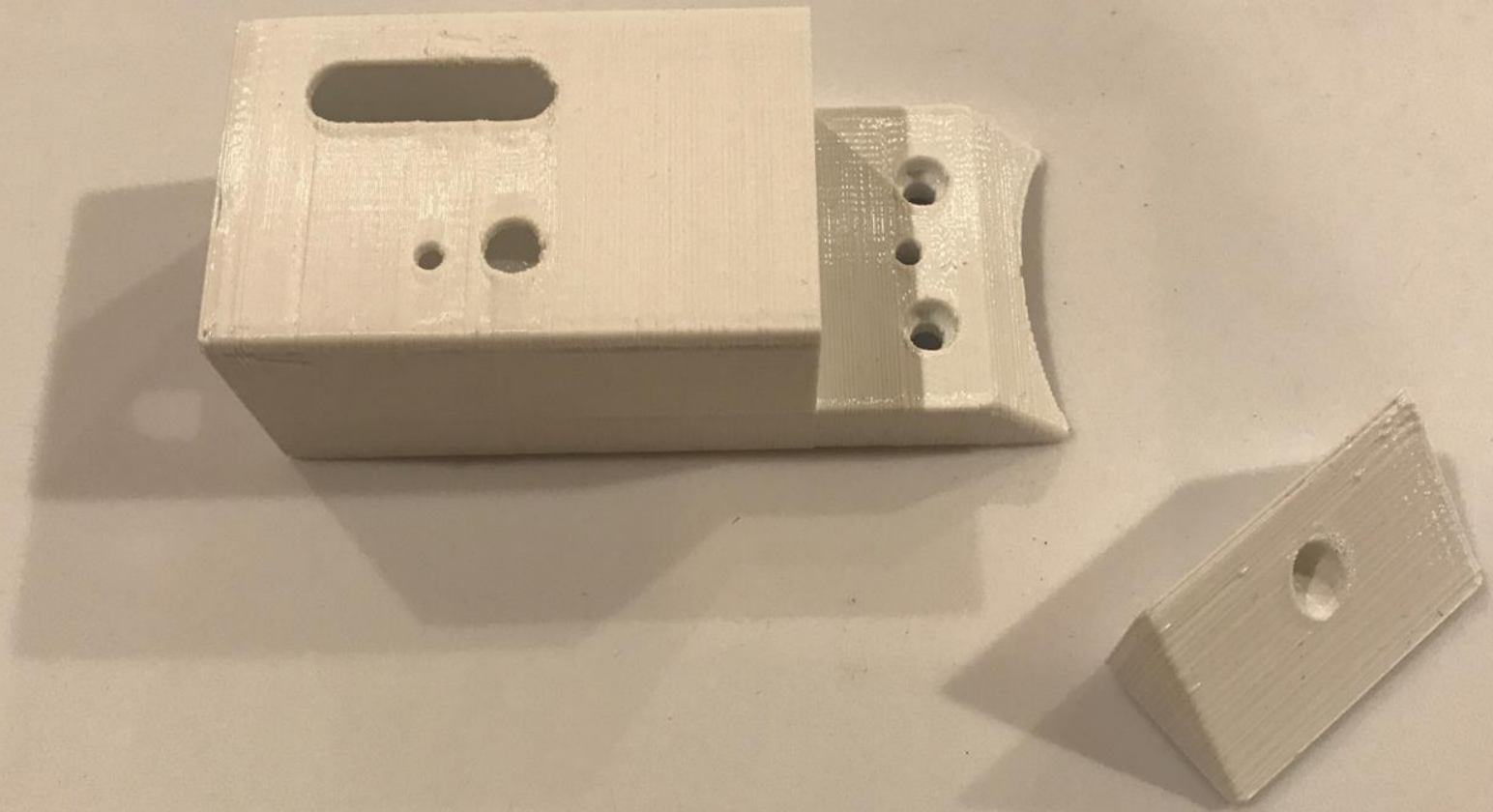
38. Wood blocks (for rail buttons)



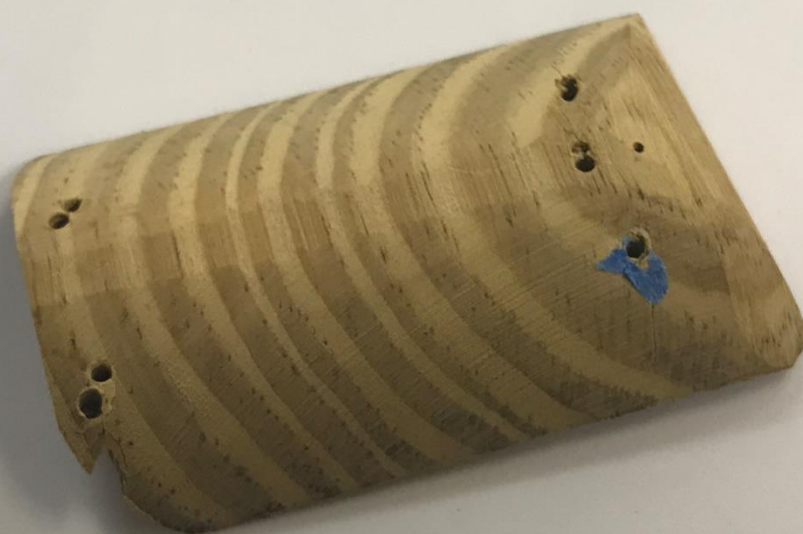
39. Rivets



40. Shear pins (2-56 nylon screws)



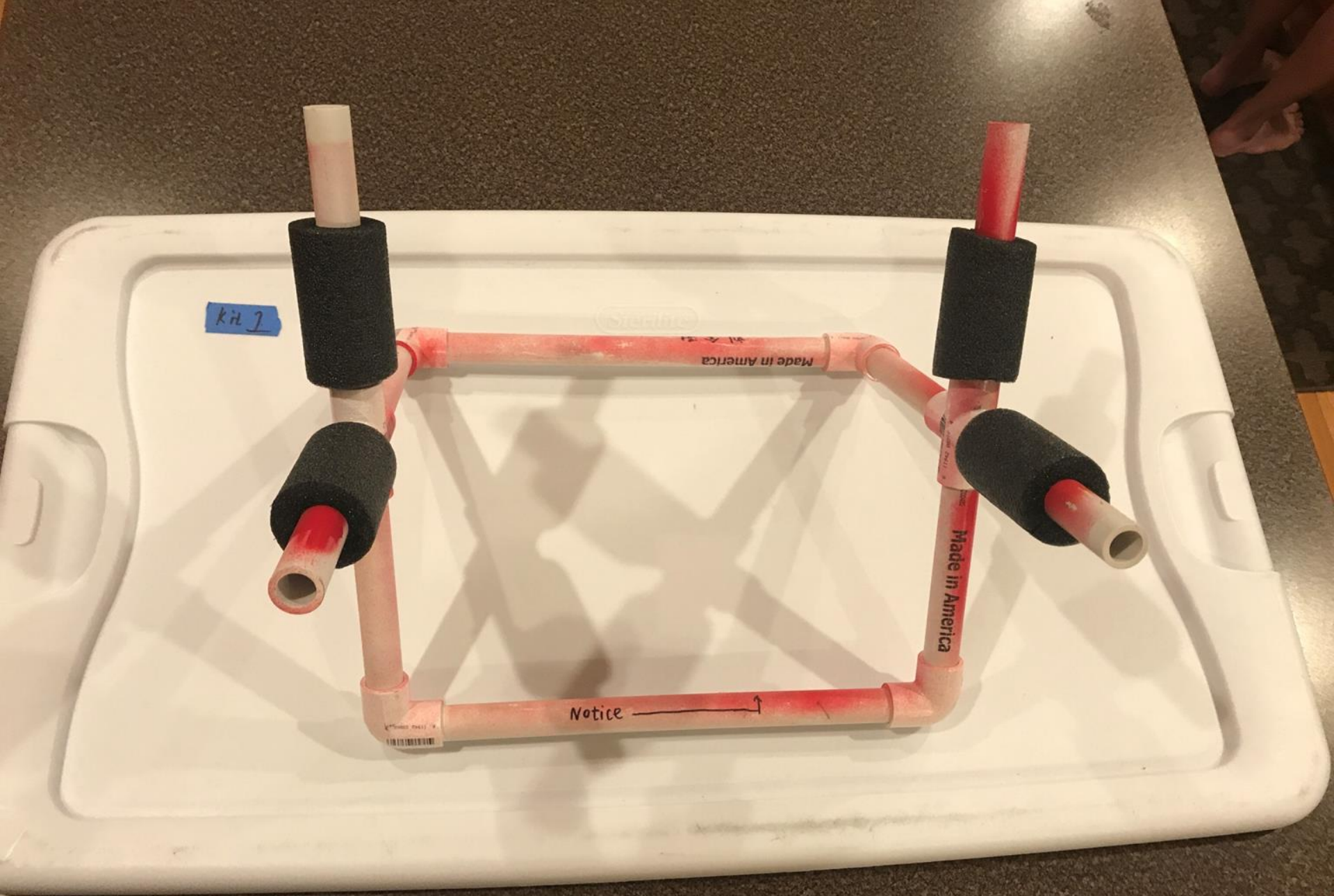
41. 3D printed camera mount with cap



42. Wood block (for camera mount)



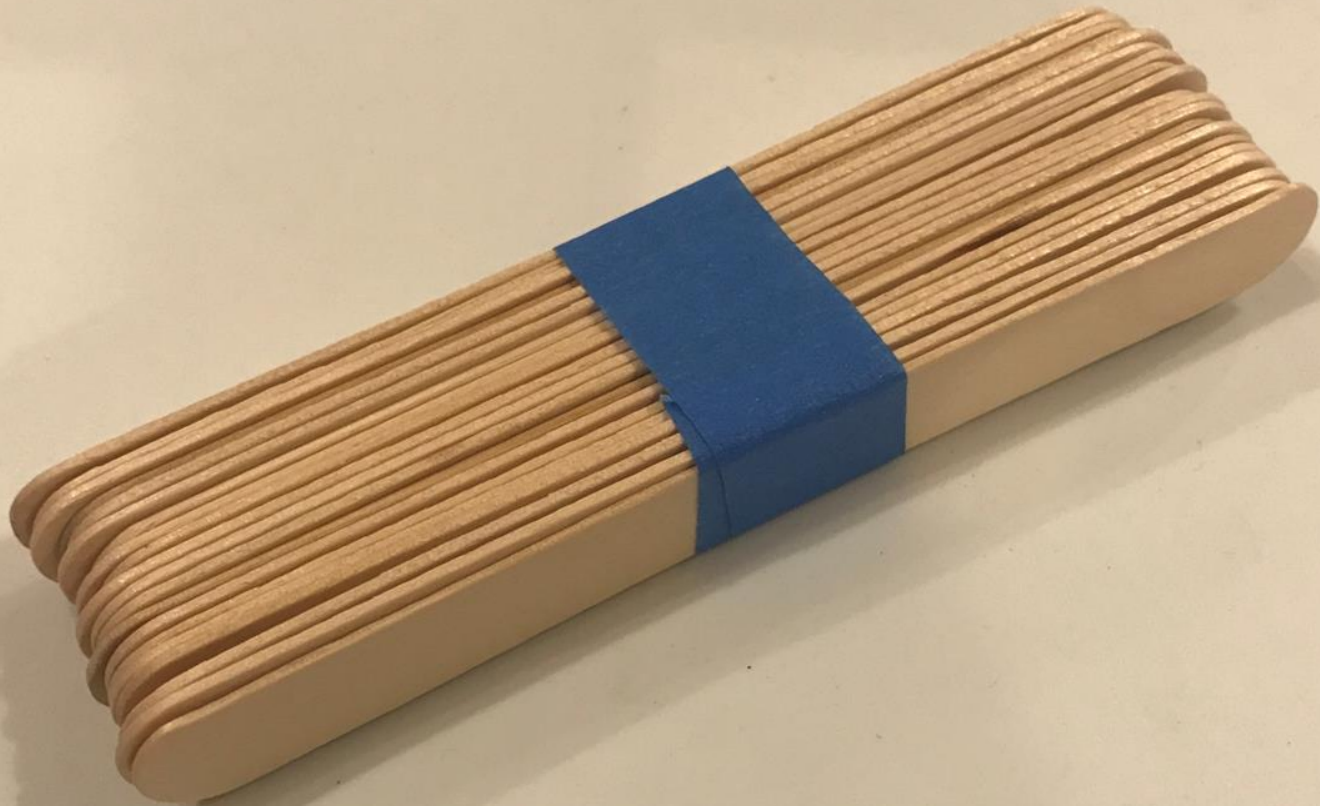
43. Wood screws



44. Rocket cradle (pvs with pads)



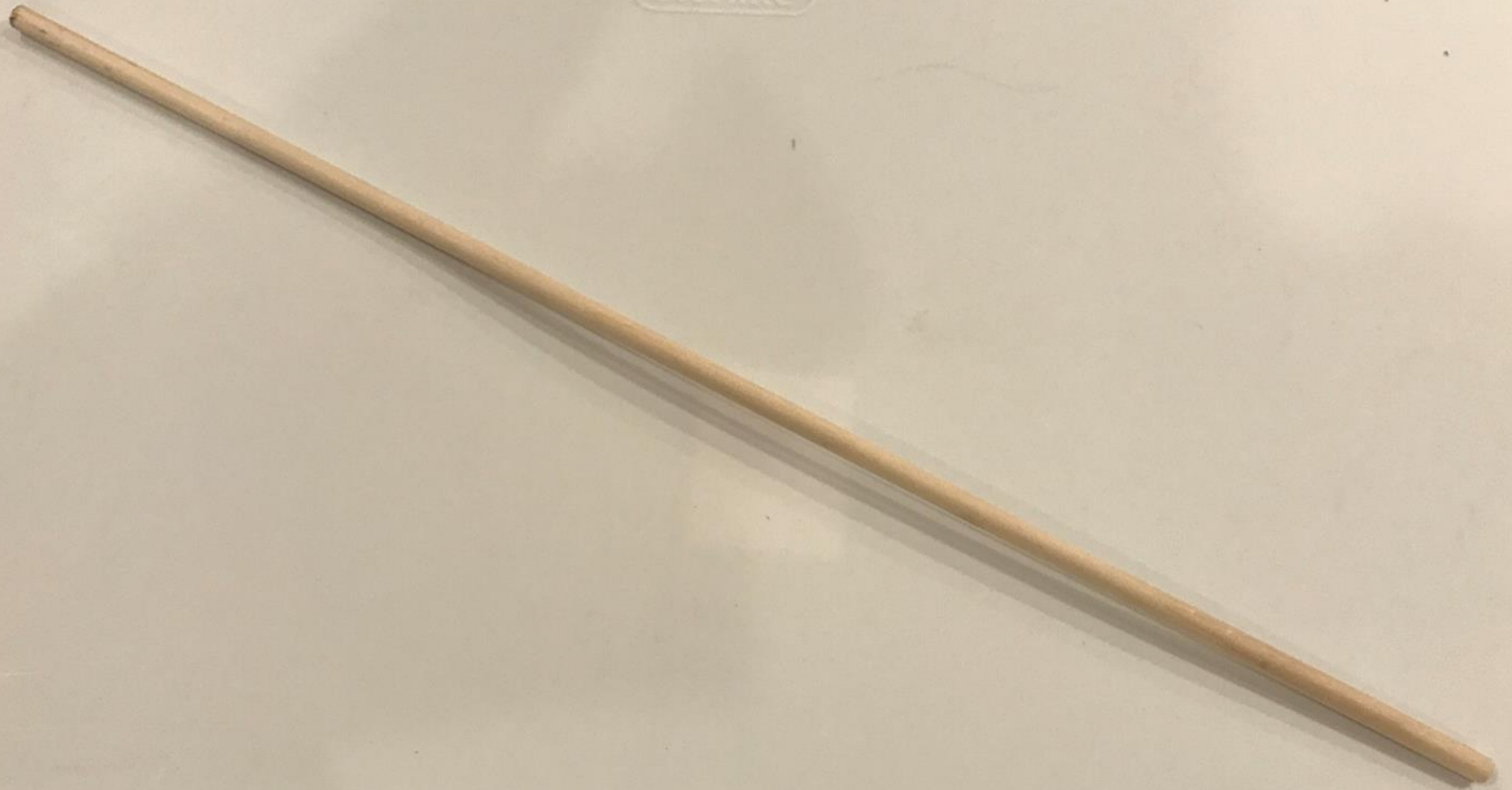
45. Epoxy mixing cups (Dixie cups)



46. Epoxy stirring sticks (tongue depr)

kit 1

Sterilite



47. Dowel (for epoxy application)



48. Blue painters tape



49. Strapping tape, electrical tape

Sterilite



50. Zip ties (assorted)



51. Sanding blocks: medium & fine



52. Tack cloth (for dust removal)



53. Tape measure



1000 024 252

HUSKY

GUARANTEED FOREVER
Garantía permanente

6-PIECE PRECISION SCREWDRIVER SET
JUEGO DE DESTORNILLADORES DE PRECISIÓN, DE 6 PIEZAS

54. Jewel screwdriver set



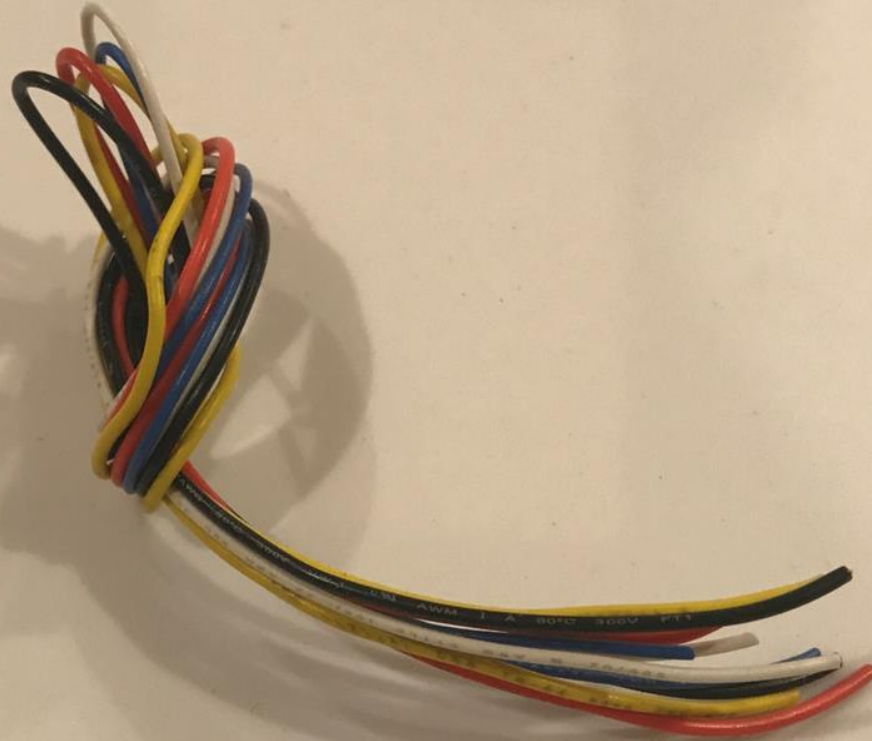
55. Utility knife (style may vary)



56. Nitrile gloves (disposable)

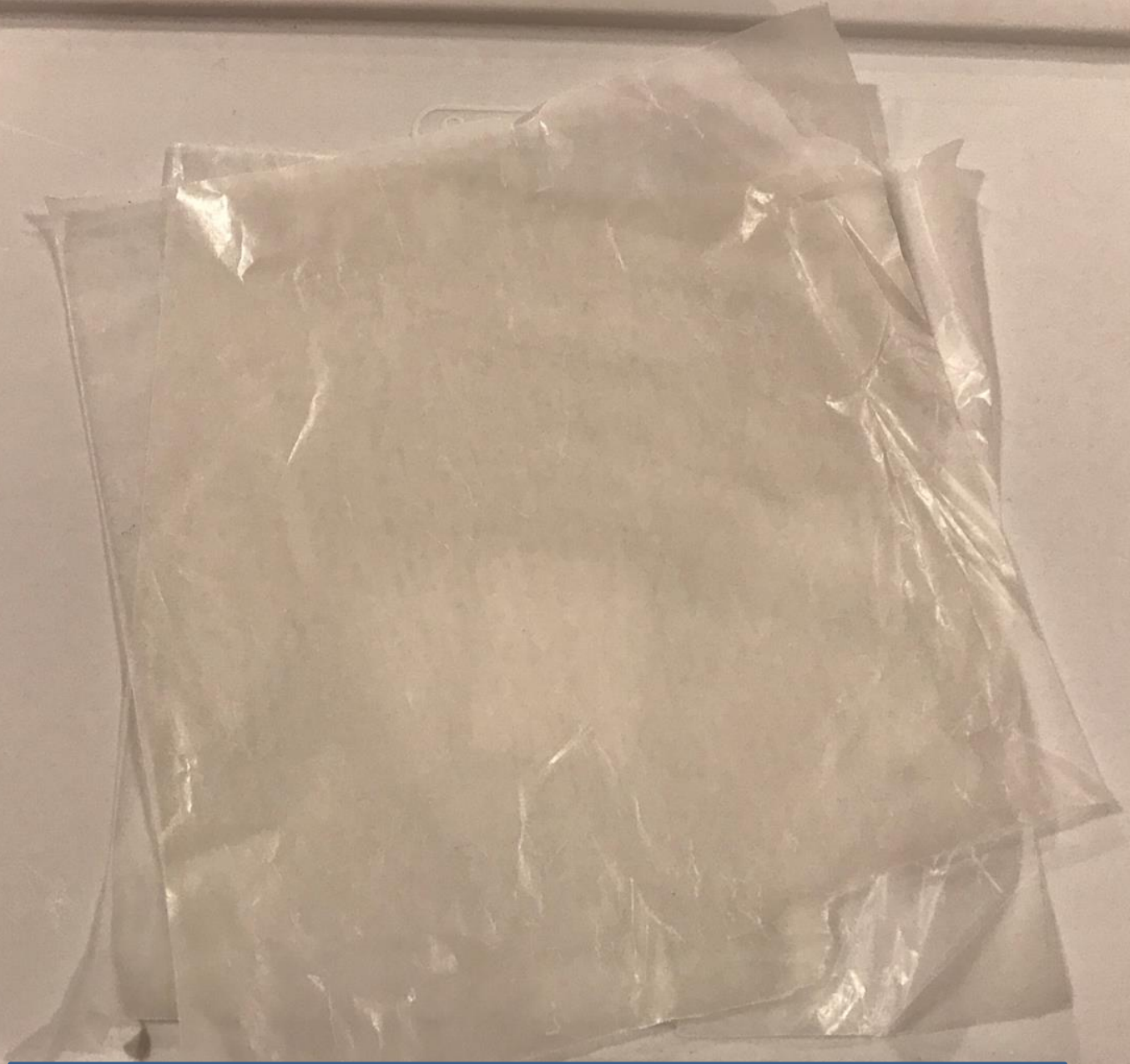


57. Duracell 9-volt batteries



58. Wire for av-bay (22 gauge stranded)

7



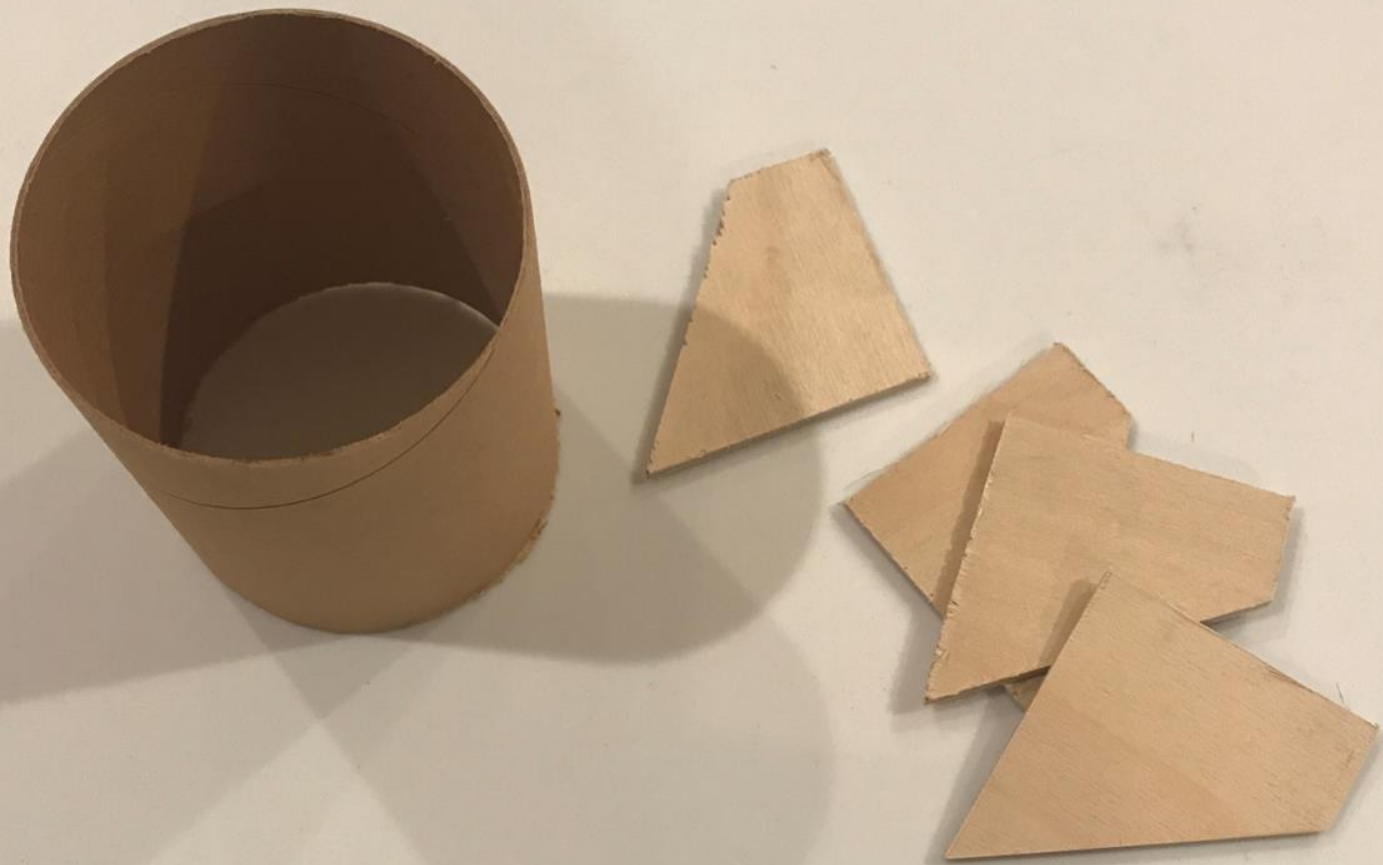
59. Wax paper squares



60. Scissors



61. Sharpie markers



62. Parts for fin-can (epoxy) exercise



Will lend: 63. Mobius video camera



Will lend: 64. Radio beeper



Will provide: 65. Pyrodex (ejection chg)



Will provide: 66. High-power motor