

Manhattan Style Construction & MUPPET style construction links.
As presented by Ken, KM4NFQ (contact: km4nfq at gmail dot com)

Brief Introduction

Manhattan Style Construction

- * A copper-clad board is the ground plane.
- * Pads are cut from copper-clad board.
- * The pads are super-glued or epoxied to the ground plane.
- * Components are soldered to the pads.
- * All component ground connections are soldered to the ground plane.

MUPPET = Manhattan-Ugly-Professional-Placement-Experimental-Technique

- * A copper-clad board is the ground plane
- * Pads are separated from the ground plane by etching, milling, or island cutting. I have even seen a V-gouge wood chisel used to engrave pads.
- * Components are soldered to the pads.
- * All component ground connections are soldered to the ground plane.

Advantages:

- * No drilling of holes for components.
- * Easy to solder.
- * Good for RF design.
- * Quick and easy for prototyping.

Disdvantages:

- * Non-standard layout, which may be difficult to troubleshoot.

Links to more information (in no particular order) [are available from the “Link-Buttons”
of the Circuit Boards Construction Techn block of The Project List website
<http://almondtree.com>]

I have also found the above article reprinted in:
The ARRL Handbook For Radio Communications, 2005.
pp. 14.85 - 14.87.
ISBN: 0-87259-928-0

Book:

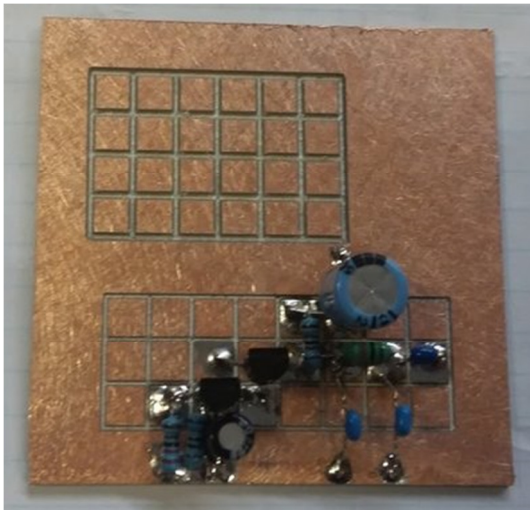
Experimental Methods in RF Design.
Wes Hayward, W7ZOI; Rick Campbell, KK7B; Bob Larkin, W7PUA.
Newington, CT: ARRL, 2003-2012.
ISBN: 978-0-87259-923-9

=====

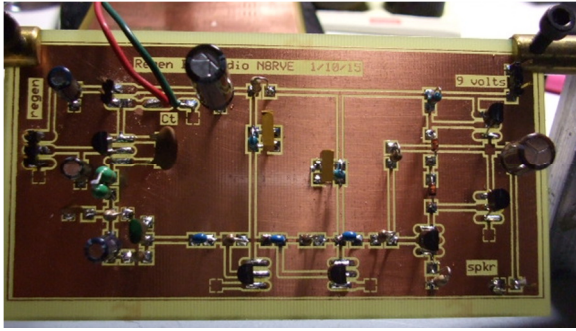
This is snapshot of the MUPPET board I home-etched using common kitchen items. The copper-clad board was cleaned with a green nylon pot scrubber. I used painter's masking tape to mask the copper-clad board. The areas I wanted to remain copper were cut out with an X-Acto knife. Fingernail polish was painted on as a RESIST, and let dry. The masking tape was removed, leaving the dry RESIST in place. I mixed White Vinegar, Hydrogen Peroxide, and Table Salt together for an etchant. The board was etched in the etchant until the exposed copper was removed. I used ACETONE (Fingernail Polish Remover) was used to remove the RESIST. The pads were tinned with solder. Easy and simple.



This is an image from Pete Juliano's Simpleceiver series ([link above](#)).



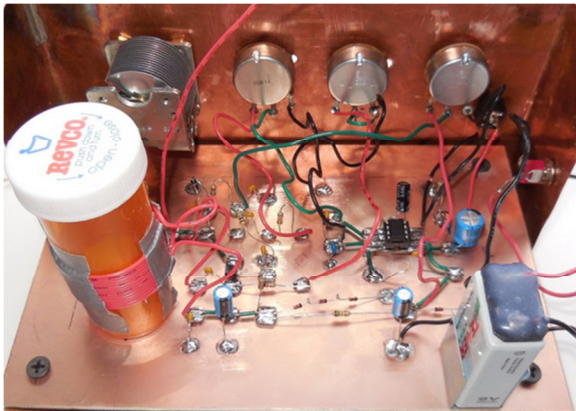
This is a MUPPET board by N8RVE, as shown at AA7EE's blog ([link above](#)).



Pads cut using an "island cutter" by w2aew (link above).



This is the Regen Radio For Beginners I built using Manhattan Style Construction.



I cut the pads from copper-clad board using a jeweler's saw frame and 2/0 saw blade.

Regards,
Ken, KM4NFQ