IPMS OTTAWA
By Modellers, for Modellers

Basics of Scratchbuilding

Glenn Cauley (Aug 7, 2024)

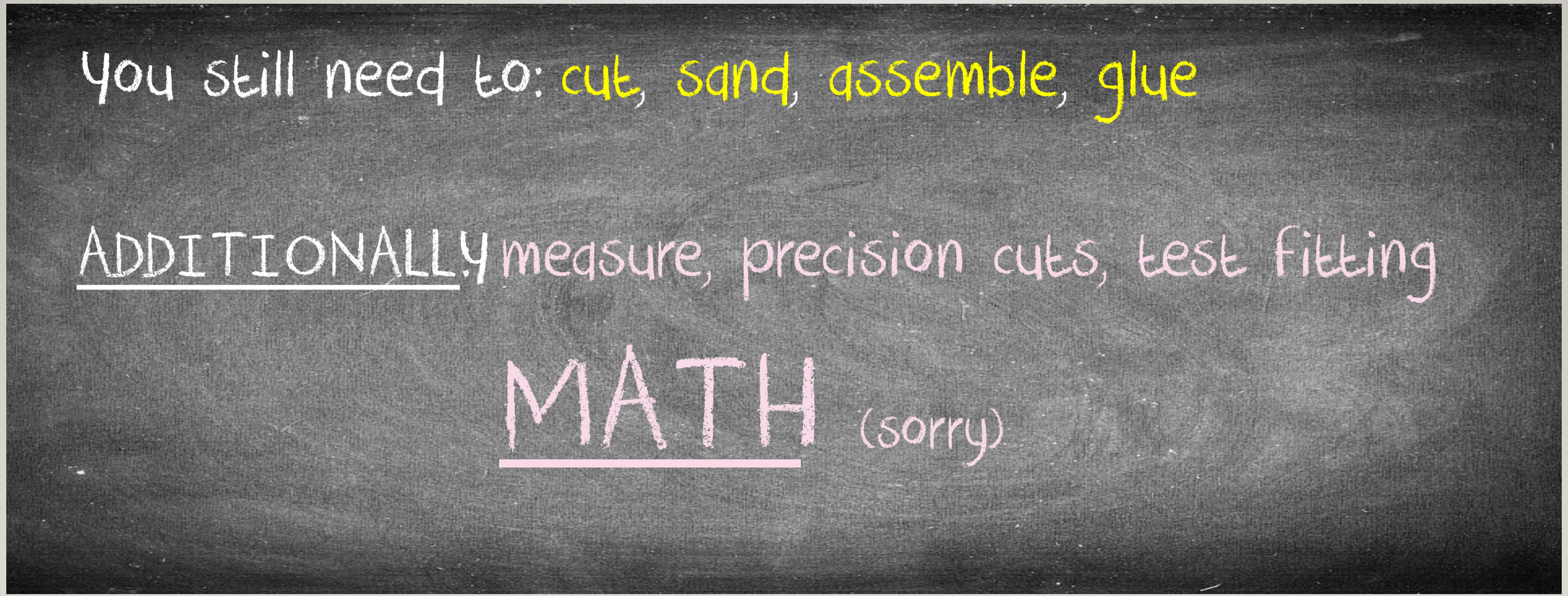
What is Scratchbuilding?

Scratchbuilding is making something from nothing using basic materials.

Why scratchbuild?

- Something is not 'right'
- Not enough detail
- Something is missing, or...
- No-one offers what you want

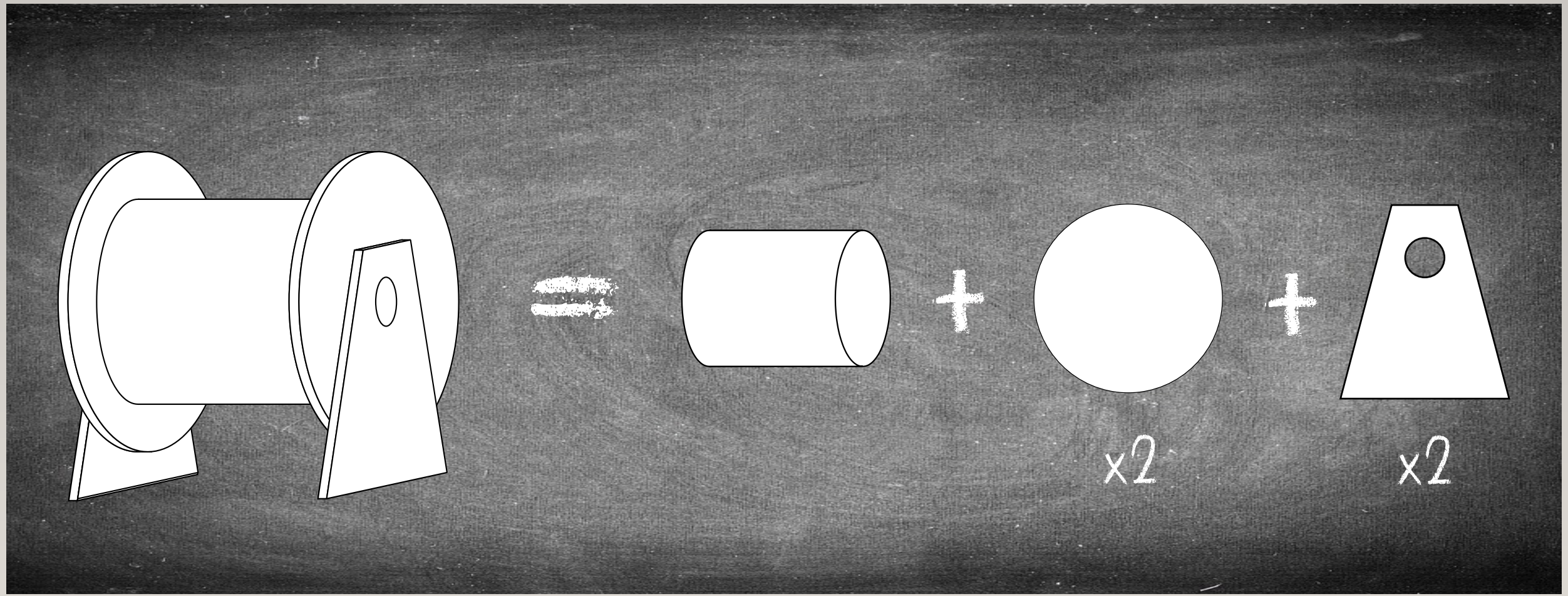
Skills for Scratchbuilding



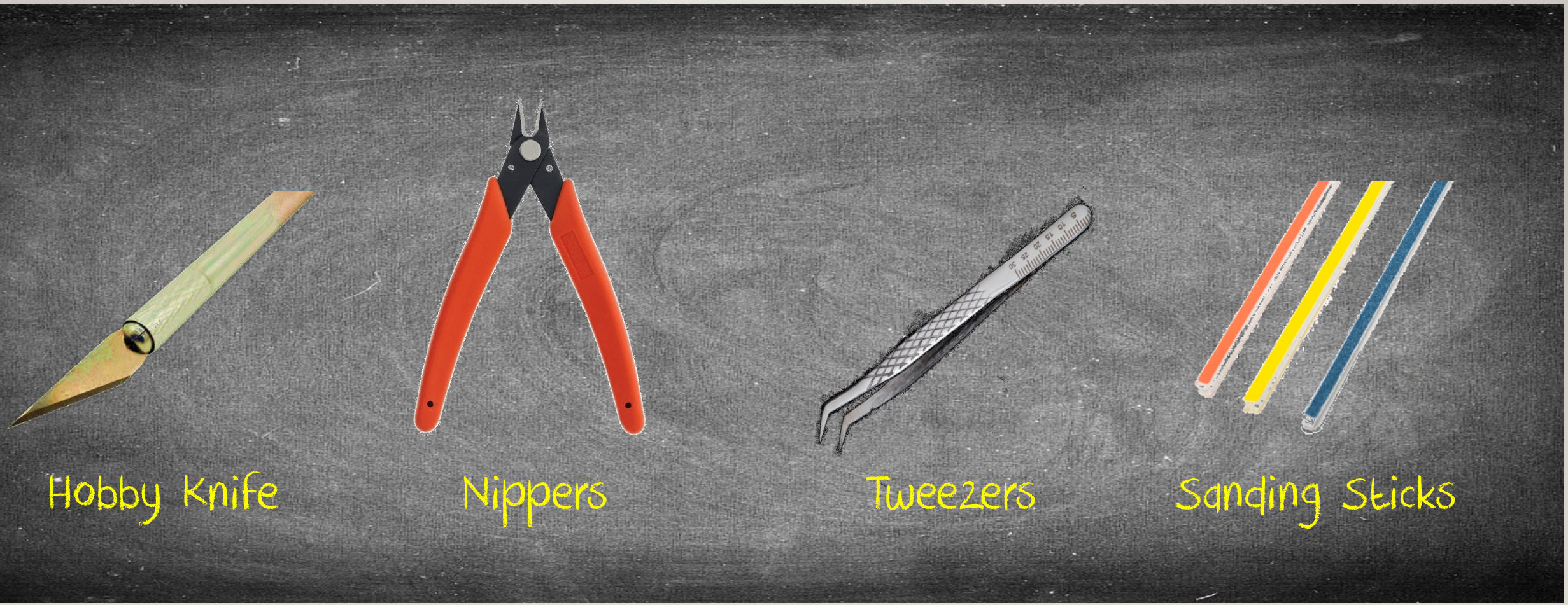
The Process

1. Look at something you want to create.
2. Determine basic shapes
3. Determine what materials to use
4. Create basic shapes
5. Put shapes together

Example: Cable Reel



Basic Tools

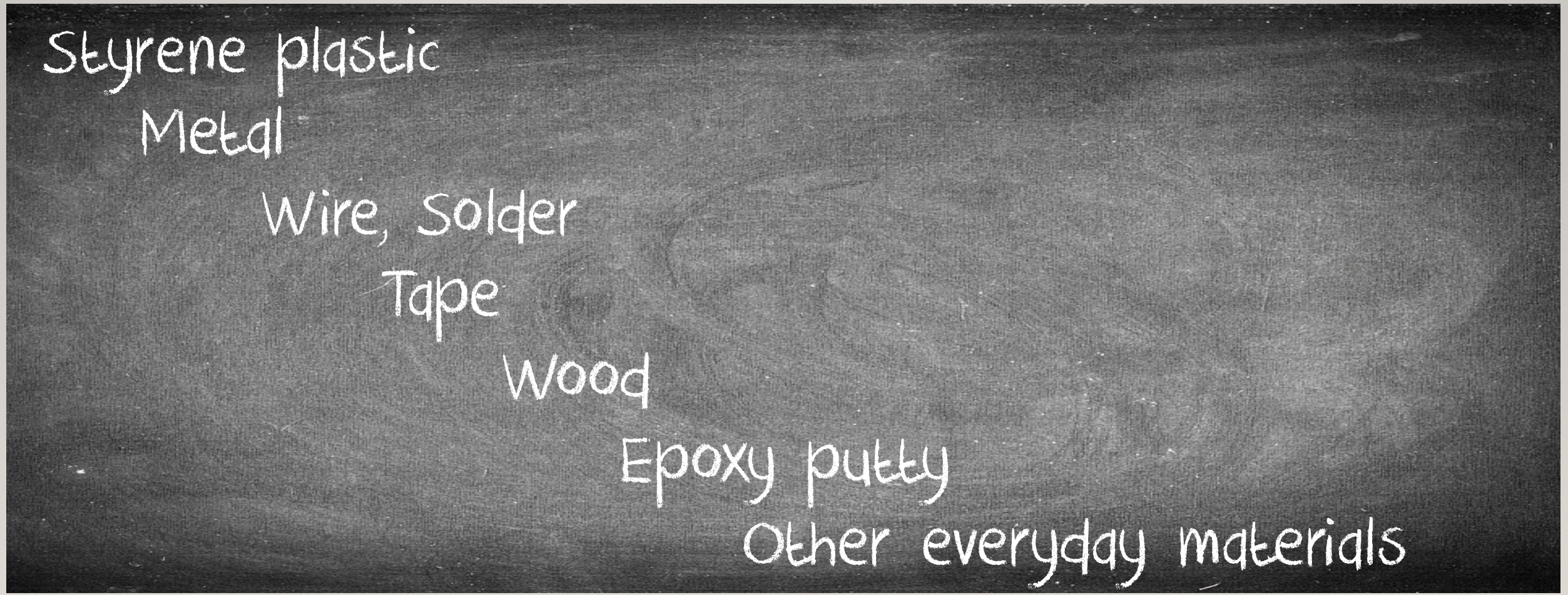


Glues

Contacta
PROFESSIONAL
TAMIYA EXTRA THIN CEMENT
DANGER EXTREMELY FLAMMABLE
VAPOR HARMFUL
Extra Thin Cement Conforms to ASTM D-4236
MERCURY ADHESIVES
MST
THIN
M300M
MEDIUM
M1100G
THICK/GAP FILLING
GREEN STUFF WORLD
A + B
EPOXY
glue
Styrene cements
CA glues
Epoxy

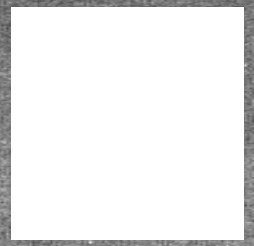
Tools for Scratchbuilding

Materials


Styrene plastic
Metal
Wire, Solder
Tape
Wood
Epoxy putty
Other everyday materials

STYRENE - rectangular

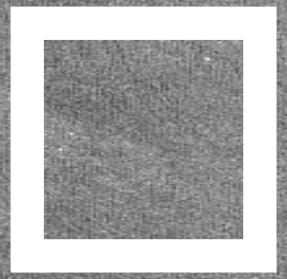
SOLID



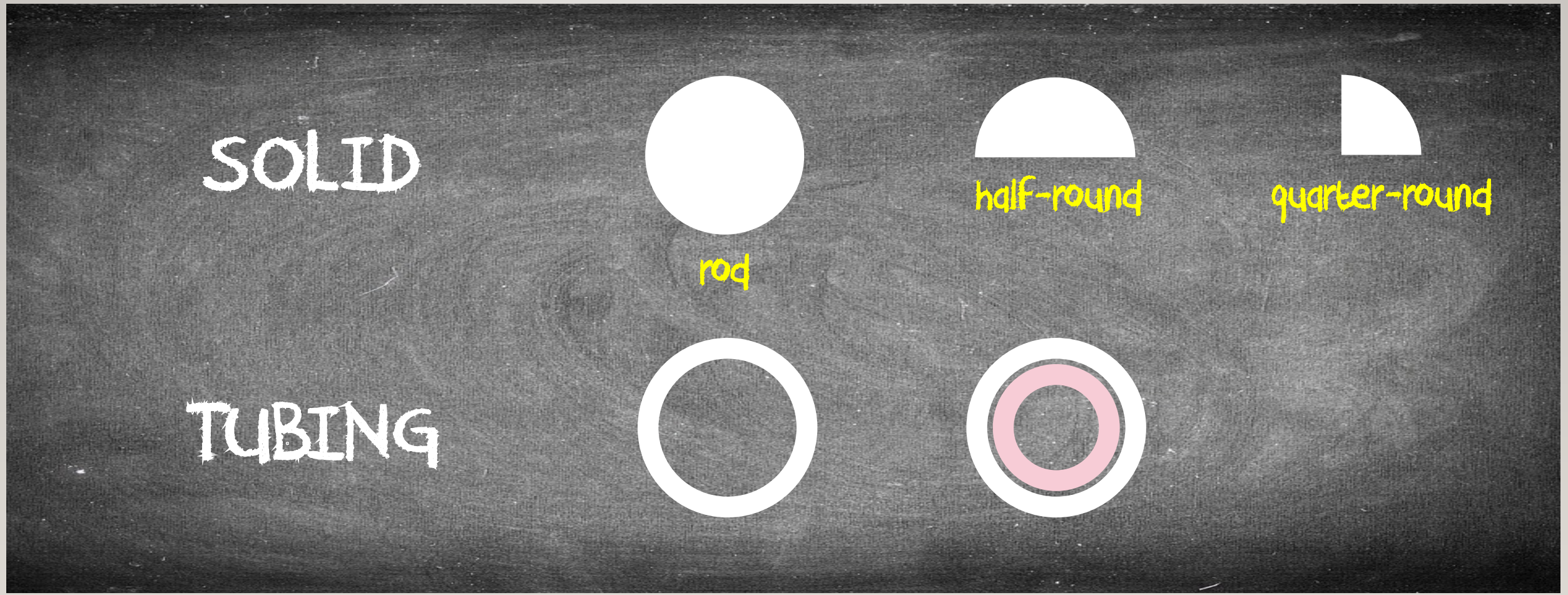
square

rectangular

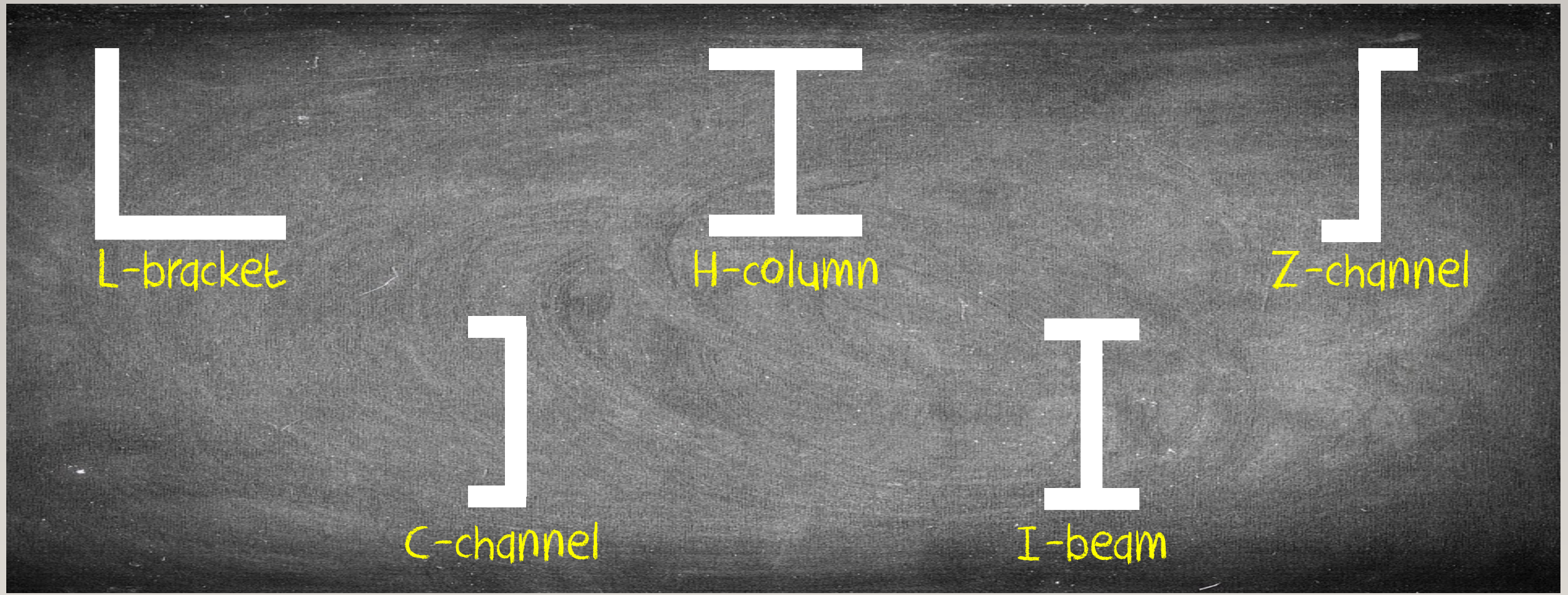
TUBING



STYRENE - round



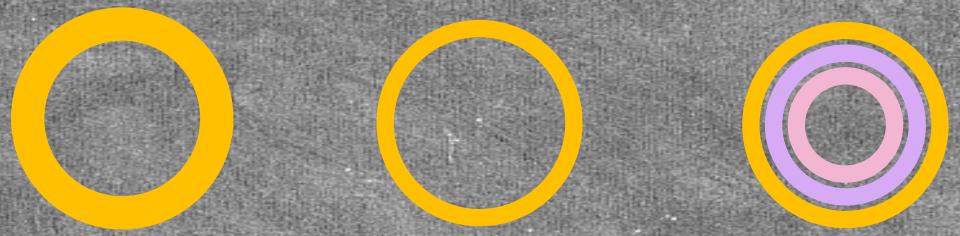
STYRENE – special shapes



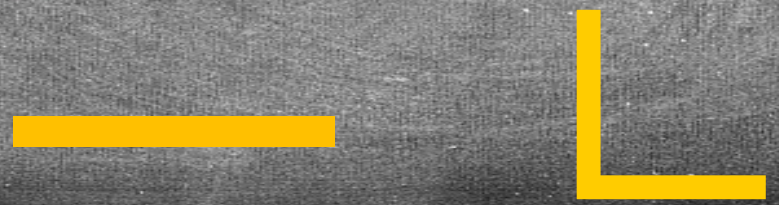
Metal

solid WIRE

hollow TUBING



solid STRIP

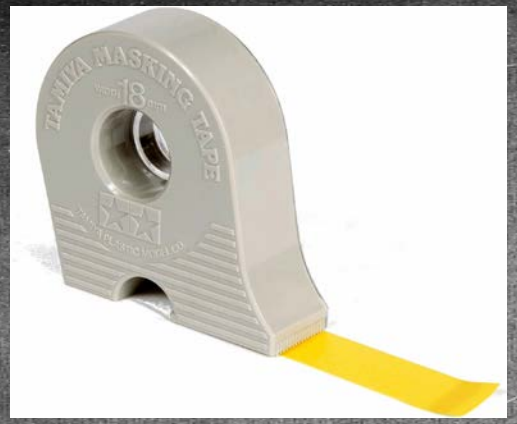


Wire & Solder

wire
(stranded, solid)

solder wire

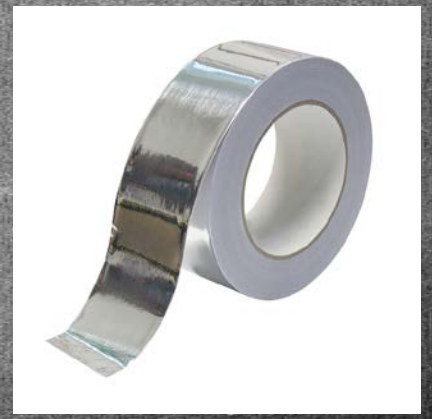
Tape



masking

vinyl

cloth



metal

Wood

basswood

balsa

Epoxy Putty

TAMIYA EPOXY PUTTY
QUICK TYPE

milliput
STANDARD

J-B Weld™
Original Cold-Weld™ Formula
Steel Reinforced
Epoxy
Strength 3960 PSI
Set Time 4-6 Hours
Cure Time 15-24 Hours
Cure Color Dark Gray
Easy
to Use
Works on
Multiple
Surfaces
Our Strongest
Epoxy
Great For:
• Household
Repairs
• Automotive
• Plumbing
• Marine
• Crafts
& More
Español al reverso

Getting Ready

1. Plan your project
2. Set up your work area
3. Make notes as you go
4. Be prepared to SHARE

Tips & Tricks

- CARDINAL RULES
- Simple parts first
- Cut oversize, then trim
- Use a mitre box
- Center-punch hole location before drilling
- Check alignment often
- Styrene
  - Scribe & snap
  - De-fuzz

PATIENCE

Food for Thought

"You miss 100% of the shots you don't take."

- Wayne Gretzky

or in modelling terms…

Don't be so afraid of not being perfect that you don't even try.
You'll never go anywhere if you don't take that first step.

Demonstrations

Cable Reel

Box frame (using L-bracket)

YouTube

https://www.youtube.com/watch?v=Xe9aCykyVfo

Projects

SeaRAM weapon loading platform

I-400 class submarine deck (Kaiten-II transport)