Custom Length Kato Unitrack

An Alternative to the Kato Expansion Track

Presented by SANTRAK

santrak.org

July 12, 2025 @ 10:00AM

Texas Transportation Museum, Zucht Exhibit Building

11731 WETMORE RD, SAN ANTONIO, TX 78247

- **WHY NON-STANDARD UNITRACK?**
- **TOOLS**
- **CONSUMABLES**
- **CUSTOMIZING STRAIGHT UNITRACK**

WHY NON-STANDARD UNITRACK?

UNITRACK COMES IN STANDARD LENGTHS

- 248mm (9 3/4”)
- 186mm (7 5/16”)
- 124mm (4 7/8”)
- 78 <-> 108mm (3 45/64” <–> 4 1/4”)
- 64mm (2 1/2”)
- 62mm (2 7/16”)
- 60mm (2 3/8”)
- 45.5mm (1 3/4”)
- 38mm (1 1/2”)
- 33mm (1 3/8”)
- 29mm (1 1/8”)

WHY NON-STANDARD UNITRACK?

UNITRACK EXPANSION TRACK VS A CUSTOMIZED 124 MM UNITRACK

Kato 20-050 - Expansion Track

78mm<->108mm

MSRP $8.50

Kato 20-020

124mm (x4)

MSRP $9.50

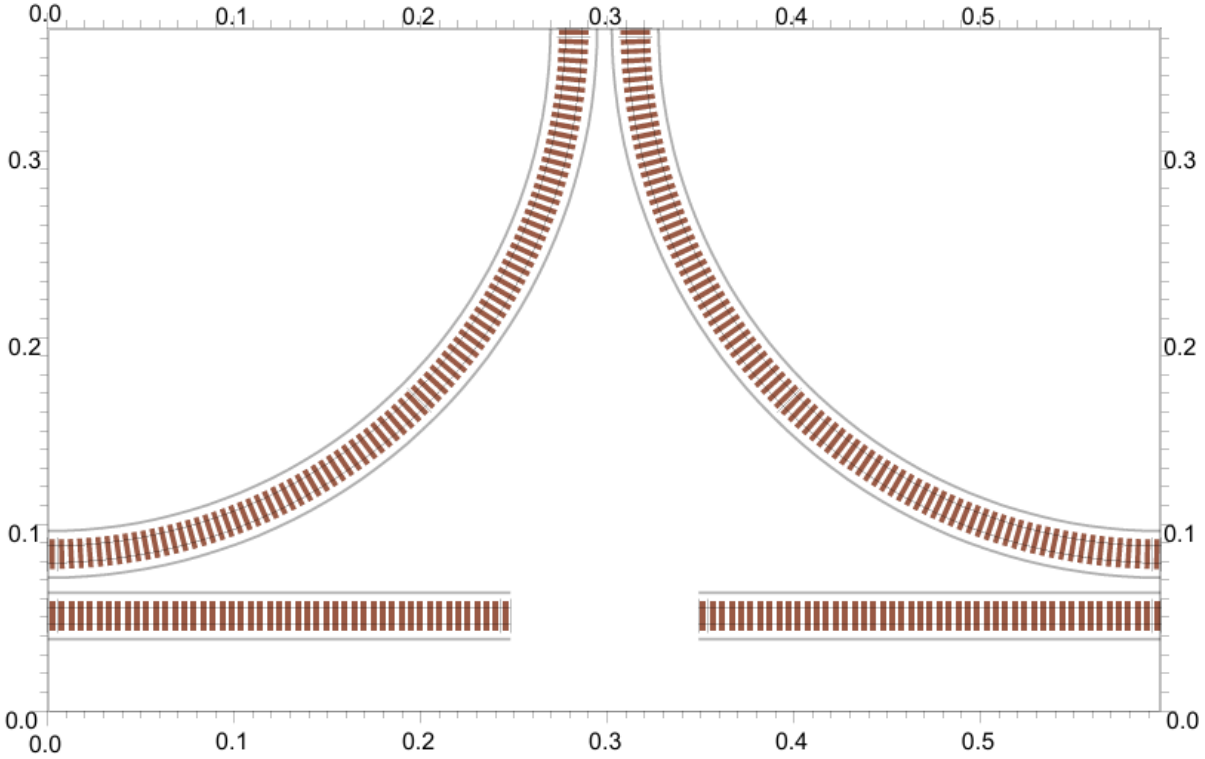
Each 124mm Piece

$2.38

WHY NON-STANDARD UNITRACK?

MANY TRACK CONFIGURATIONS REQUIRE NON-STANDARD TRACK LENGTHS

Original T-Trak Junction – 597mm wide



597 - 248 - 64 - 64 - 64 - 64 - 64 - 29 = 0

597 - 248 - 248 - 64 = 37

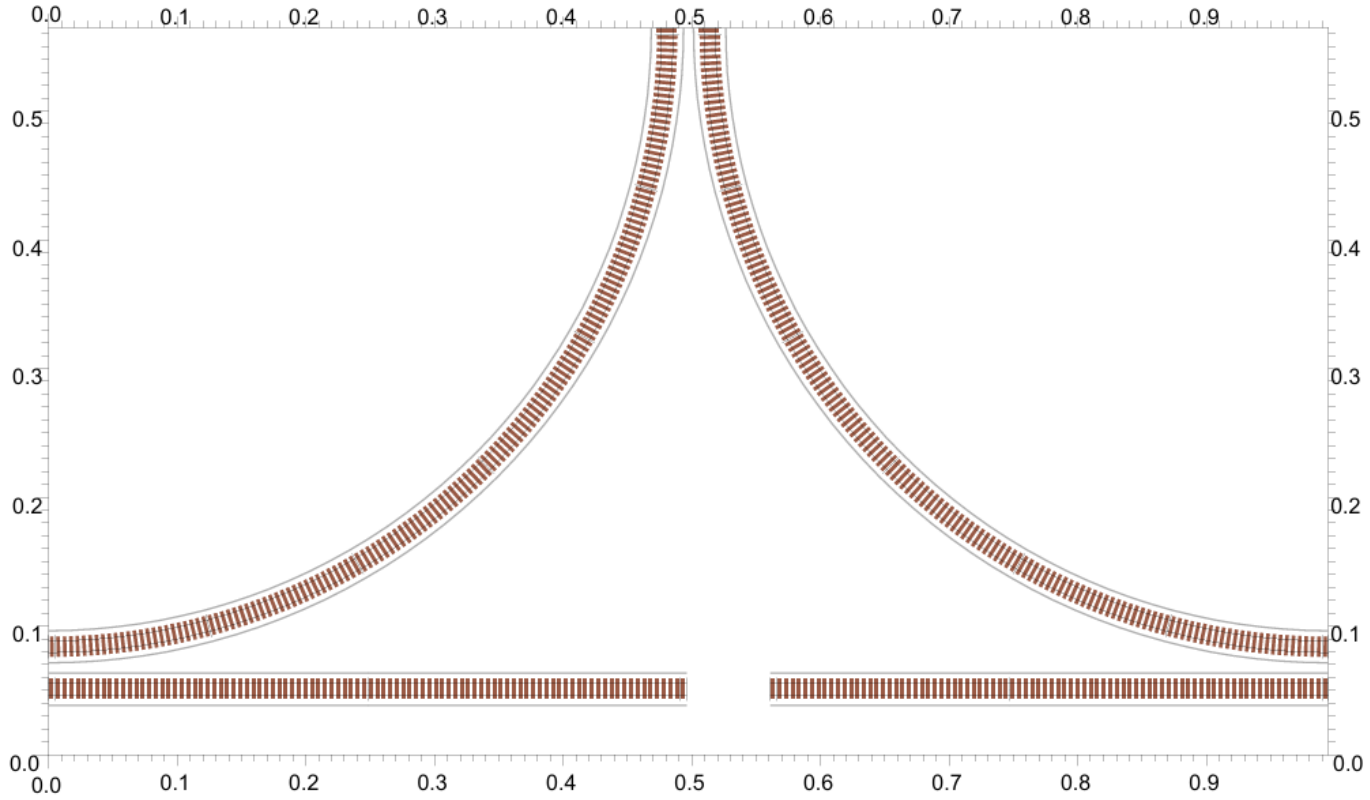
597 - 248 - 248 - 62 = 39

597 - 248 - 248 = 101

WHY NON-STANDARD UNITRACK?

MANY TRACK CONFIGURATIONS REQUIRE NON-STANDARD TRACK LENGTHS

Large T-Trak Junction – 995mm wide



995 - 248 - 248 - 248 - 248 = 3

995 - 248 - 248 - 248 - 186 - 38 = 27

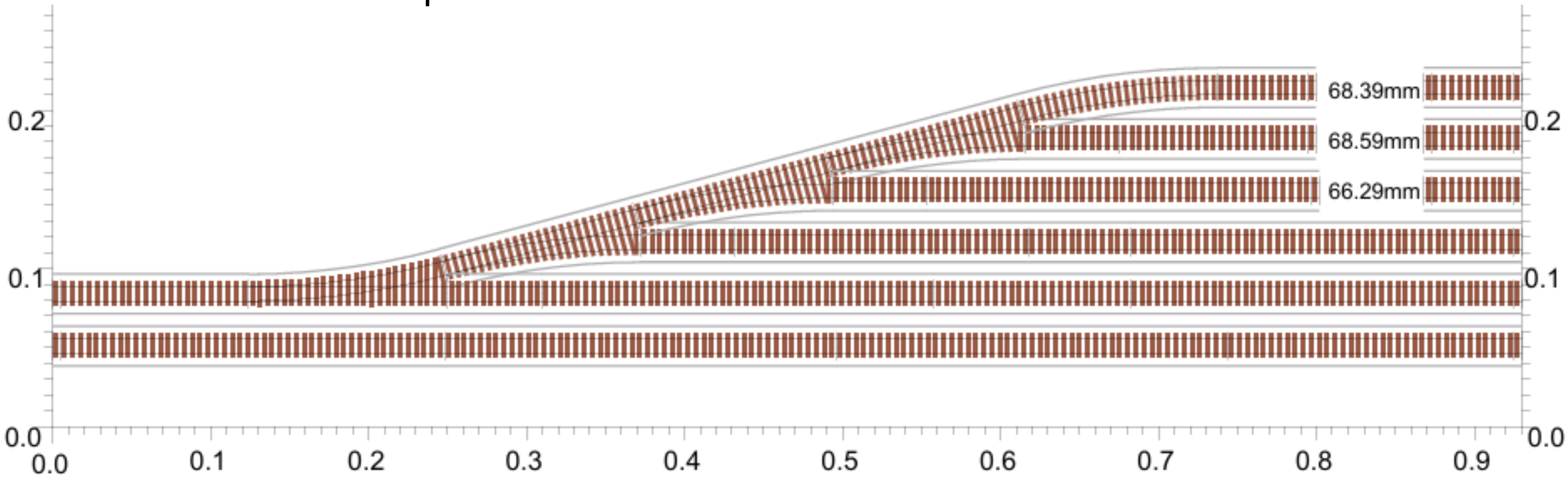
995 - 248 - 248 - 248 - 186 = 65

995 - 248 - 248 - 248 - 124 = 127

WHY NON-STANDARD UNITRACK?

MANY TRACK CONFIGURATIONS REQUIRE NON-STANDARD TRACK LENGTHS

Triple T-Trak Yard – 930mm wide

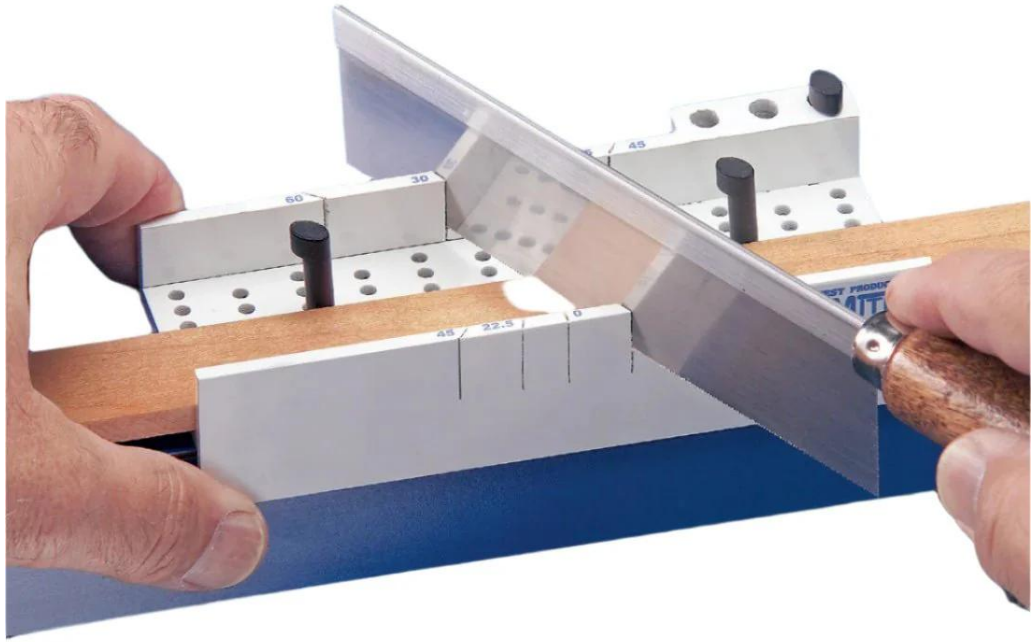


TOOLS

- Razor Saw & Miter Box
- Sander (capable of squaring cut ends)
- Caliper / Machinist's Rule
- Bar Clamp
- Rail Nippers

TOOLS

RAZOR SAW & MITER BOX

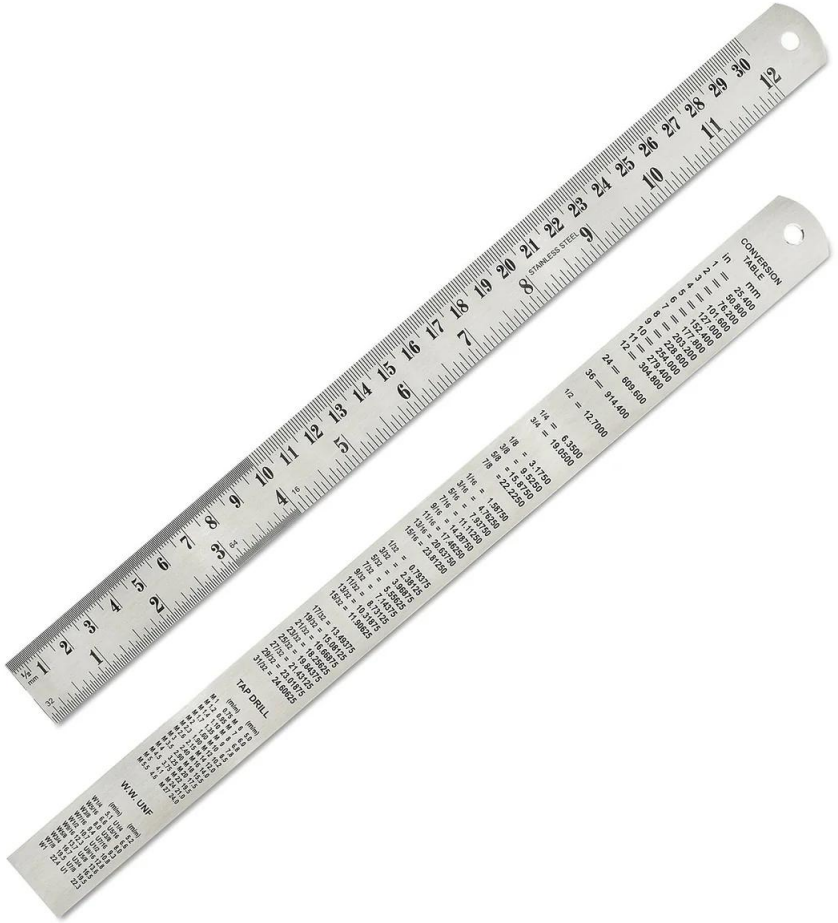


TOOLS

SANDER

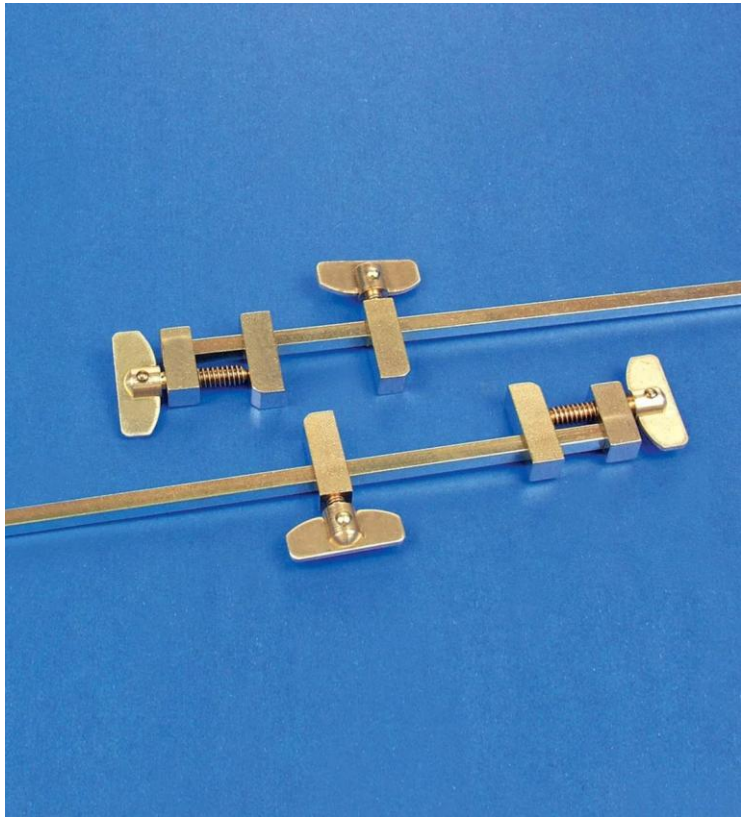
TOOLS

CALIPER / MACHINIST'S RULE



TOOLS

BAR CLAMP

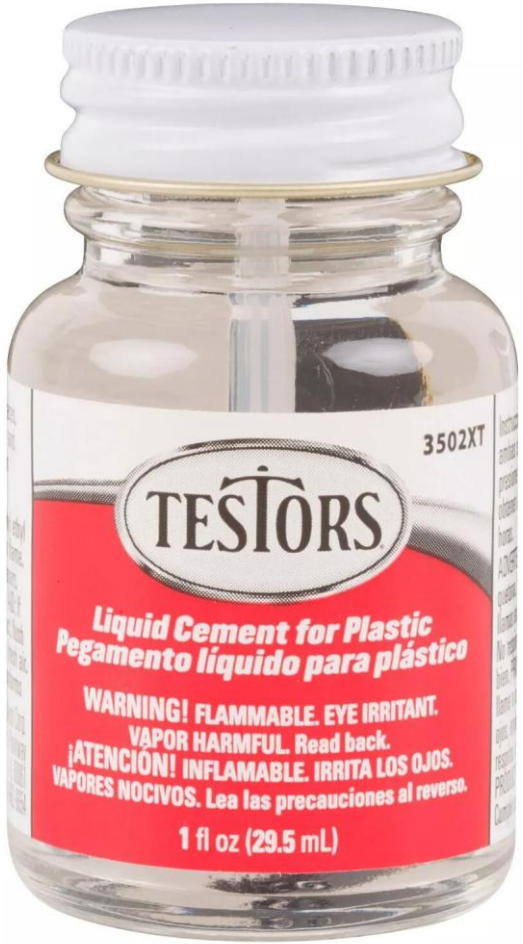


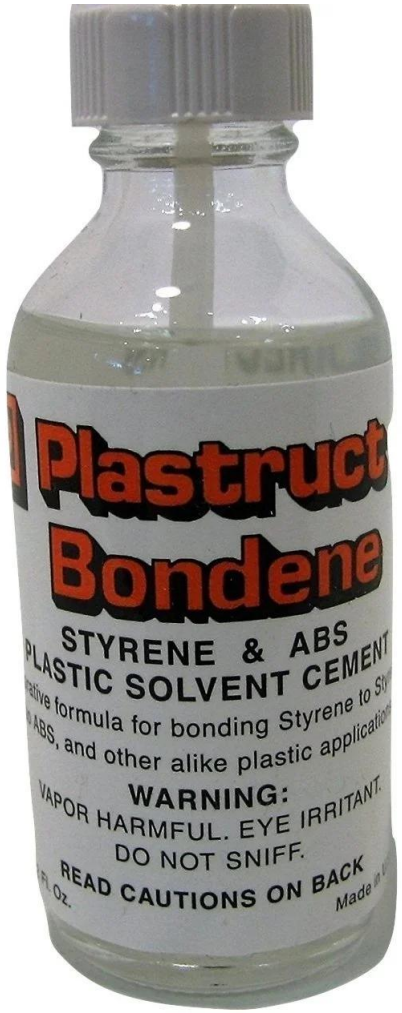
TOOLS

RAIL NIPPER

CONSUMABLES

STYRENE/PLASTIC CEMENT





CUSTOMIZING STRAIGHT UNITRACK

1. Select a piece of track
2. Remove the rails
3. Cut the roadbed
4. Sand & dress roadbed to final length
5. Reinstall rails to align the roadbed
6. Cement the roadbed
7. Clip rails to length

CUSTOMIZING STRAIGHT UNITRACK

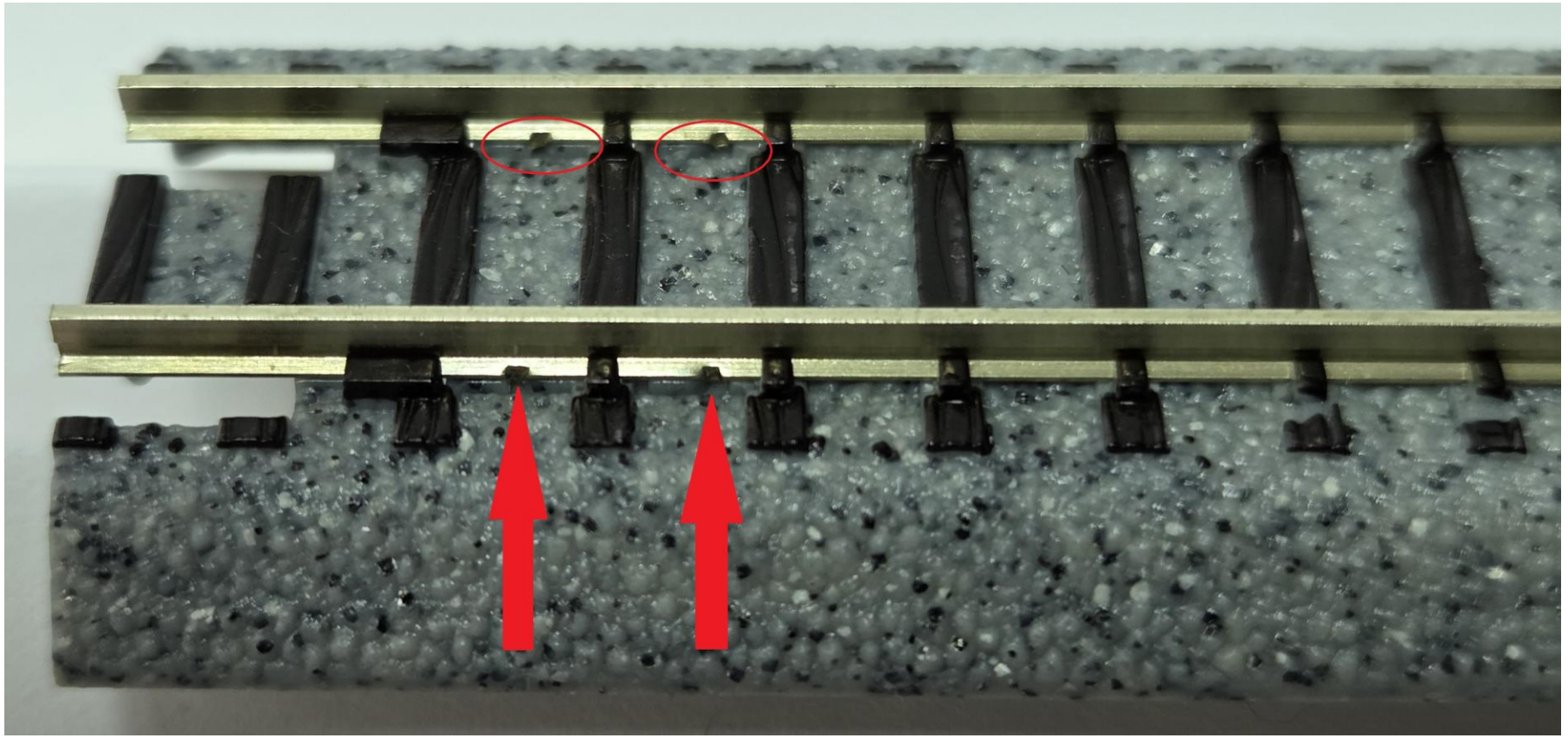
SELECT A PIECE OF TRACK

- Select a piece of track longer than the desired custom piece
  - 186mm to become 127mm
  - 124mm to become 101mm
  - 124mm to become 65mm
  - 62mm or 45.5mm or 38mm or 33mm or 29mm to become 27mm
  - 2 x 60mm to become 33mm or 27mm

CUSTOMIZING STRAIGHT UNITRACK

REMOVE THE RAILS

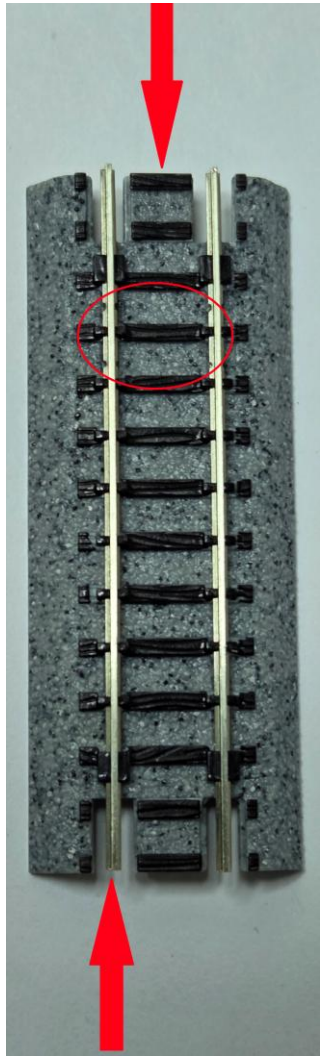
- Locate the end of the rail with the retaining bulge

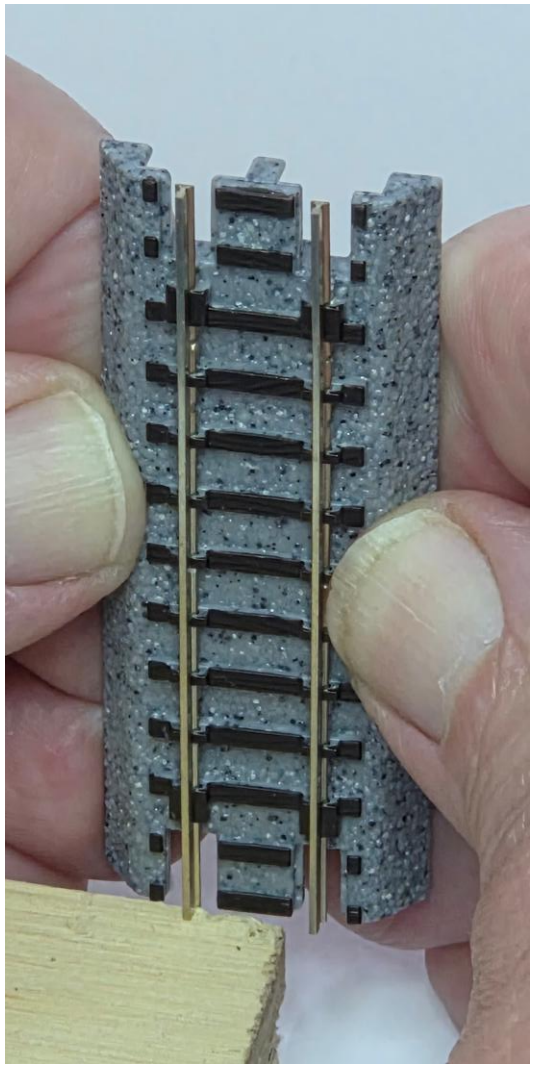


CUSTOMIZING STRAIGHT UNITRACK

REMOVE THE RAILS

- Remove the rail joiners
- Push the retaining bulge beyond the tie plates

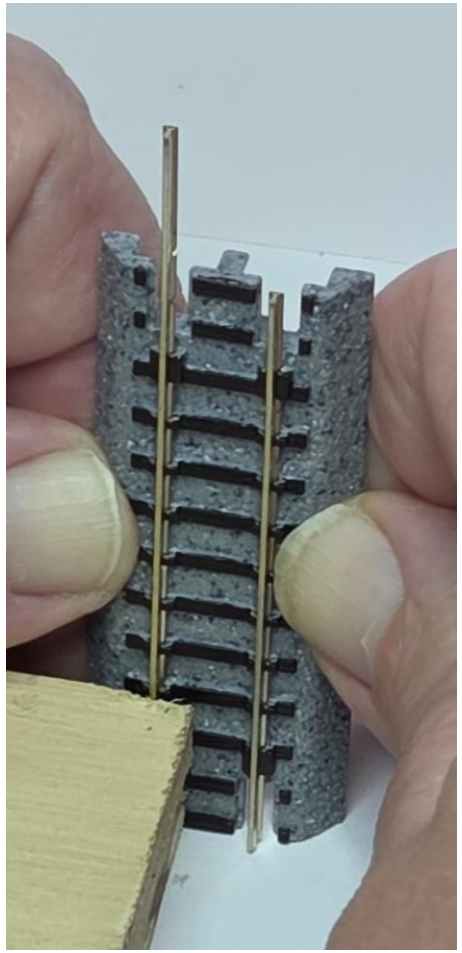


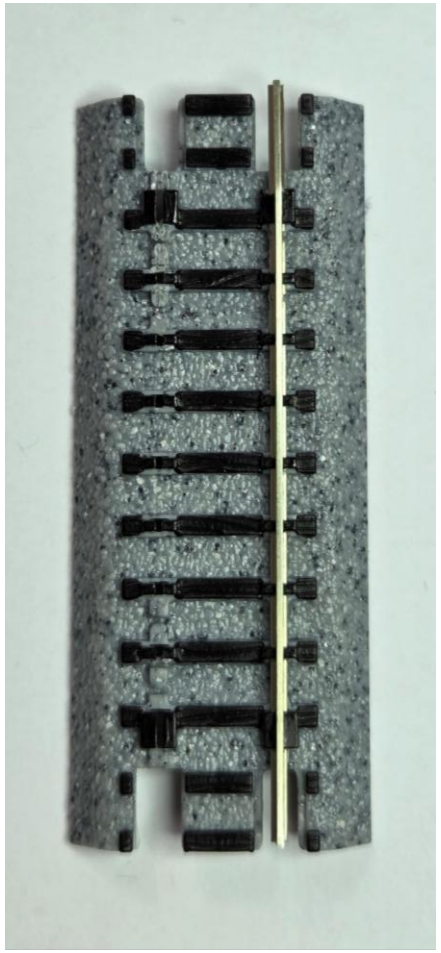


CUSTOMIZING STRAIGHT UNITRACK

REMOVE THE RAILS

- Push the retaining bulges beyond the tie plates
- Slide the rail completely free

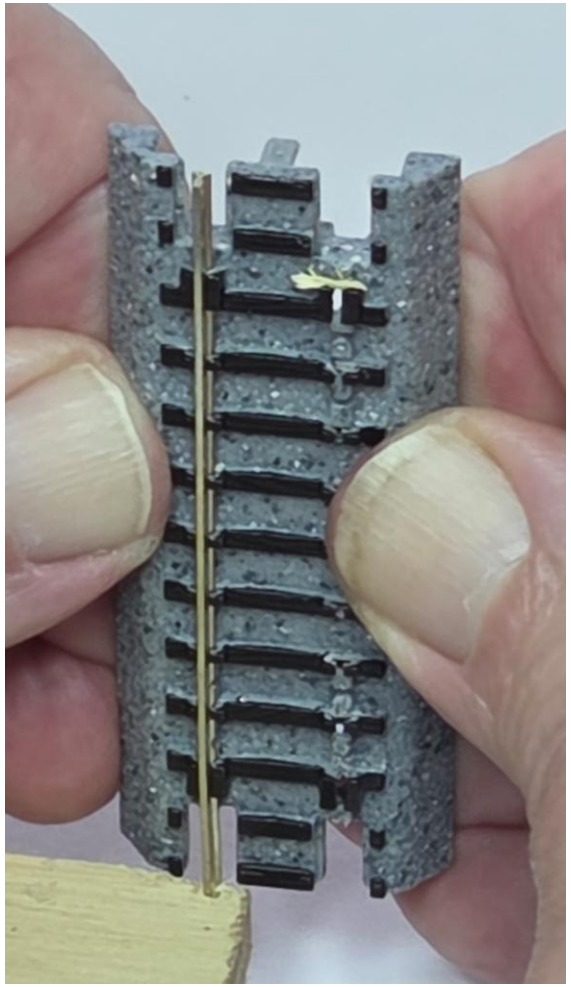


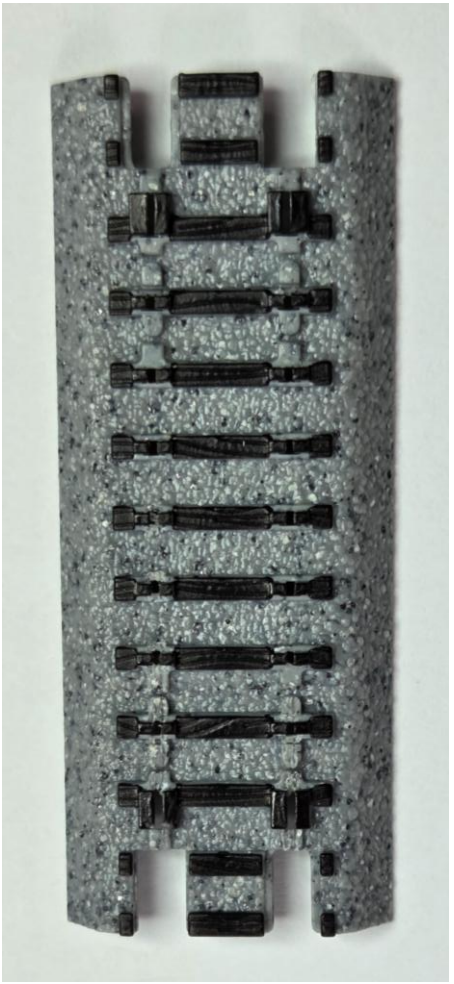


CUSTOMIZING STRAIGHT UNITRACK

REMOVE THE RAILS

- Repeat for the 2nd rail

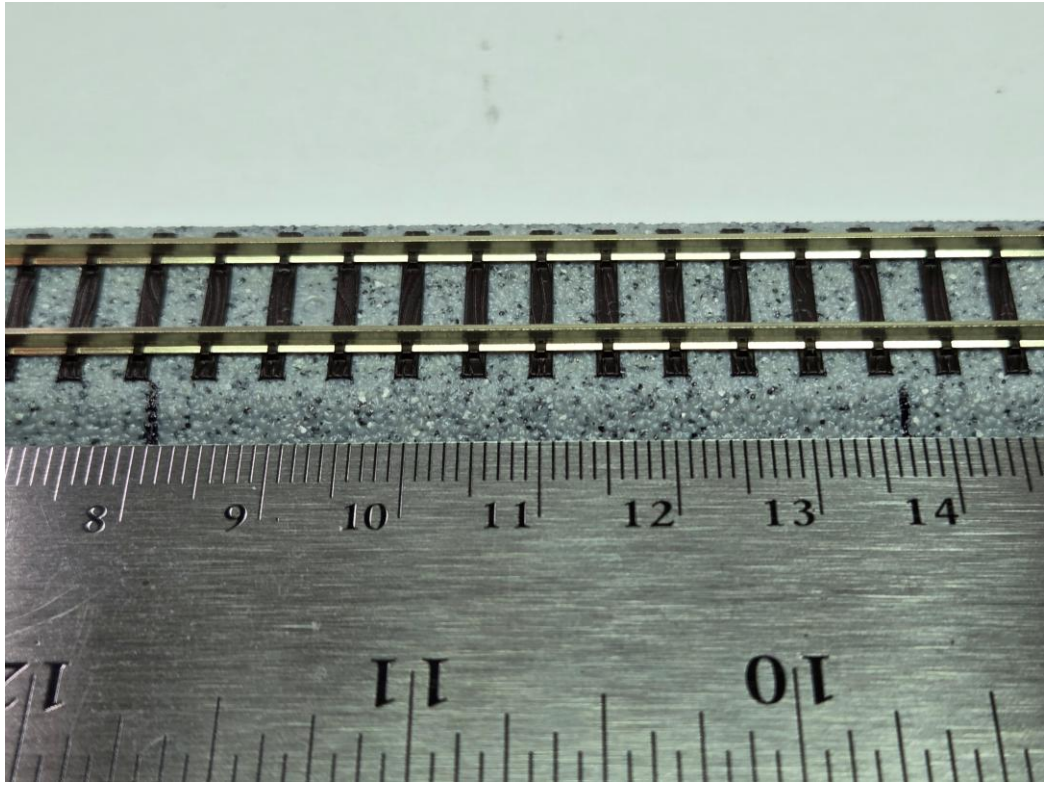




CUSTOMIZING STRAIGHT UNITRACK

CUT THE ROADBED TO LENGTH

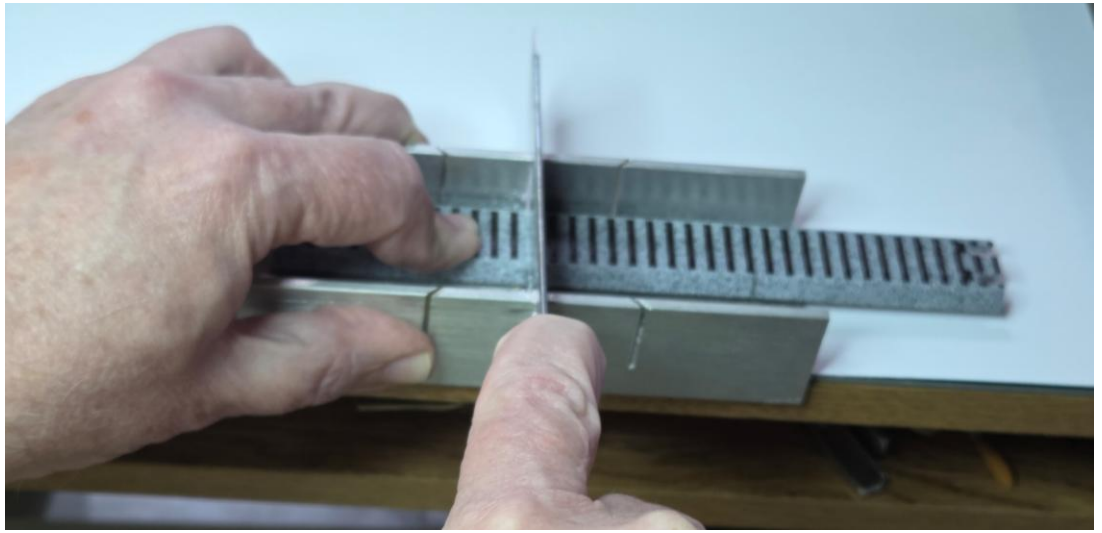
- Measure and mark a little over ½ the desired custom length from each end of the roadbed (the extra length allows for sanding exactly to desired length)

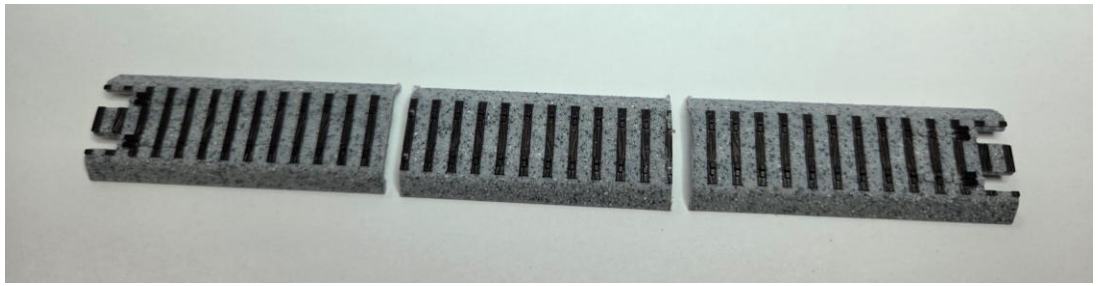


CUSTOMIZING STRAIGHT UNITRACK

CUT THE ROADBED TO LENGTH

- Using the razor saw and miter box cut the roadbed into 3 pieces (there will be a waste piece of roadbed from the middle)

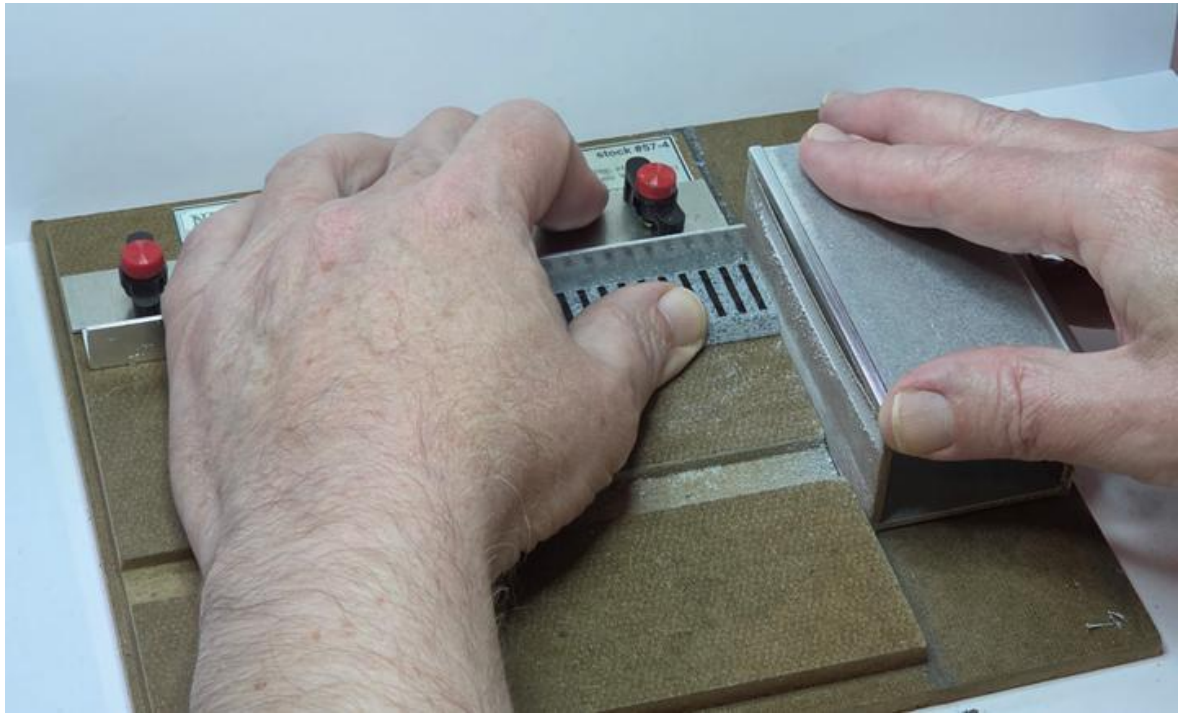




CUSTOMIZING STRAIGHT UNITRACK

SAND & DRESS THE CUT ROADBED TO FINAL LENGTH

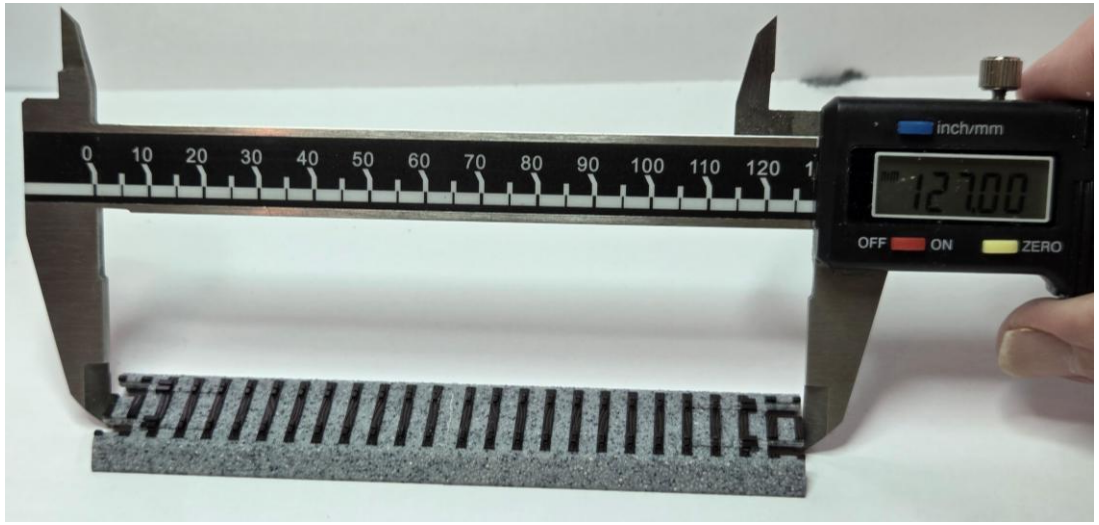
- Sand the fresh cut of both roadbed segments perpendicular (vertically and horizontally)

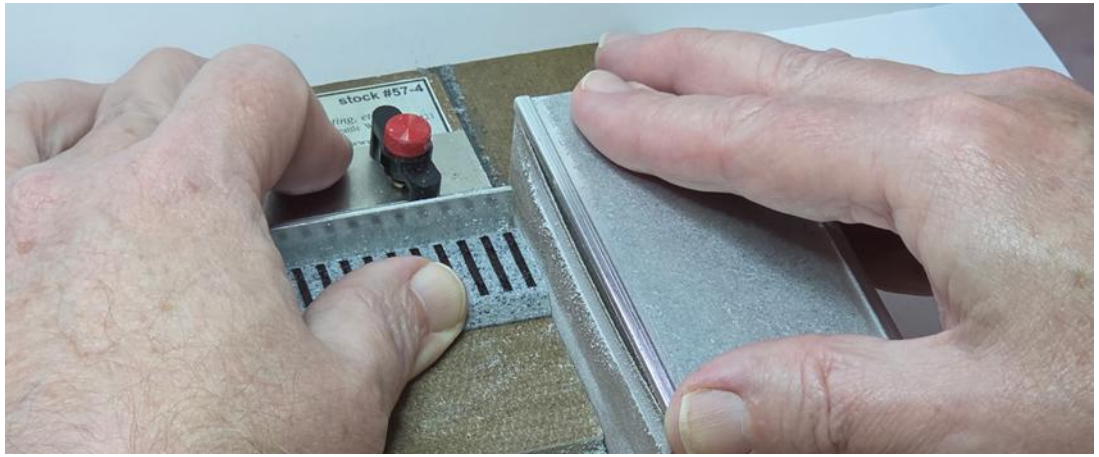


CUSTOMIZING STRAIGHT UNITRACK

SAND & DRESS THE CUT ROADBED TO FINAL LENGTH

- Measure the combined length of the 2 roadbed segments
- Continue sanding to desired final length



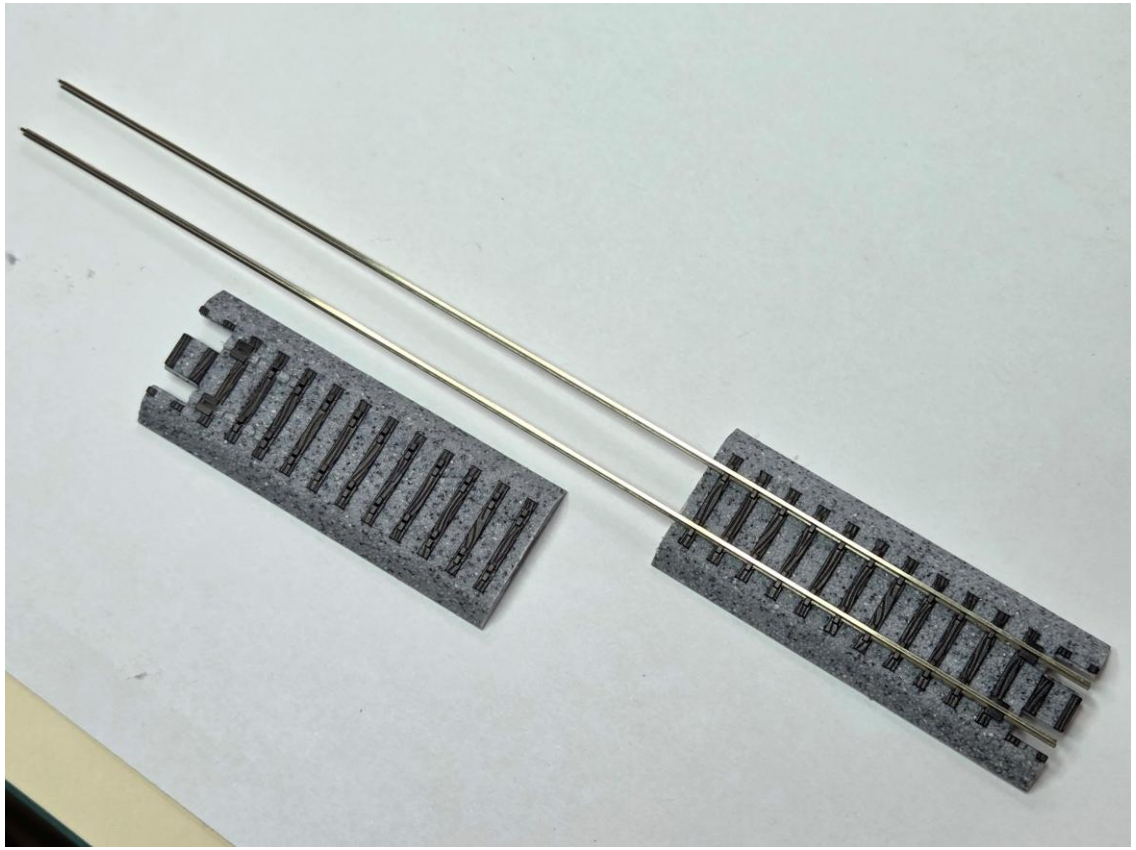


CUSTOMIZING STRAIGHT UNITRACK

REINSTALL RAILS

- Thread the rails through the tie plates of one roadbed segment; non-retaining bulge end first

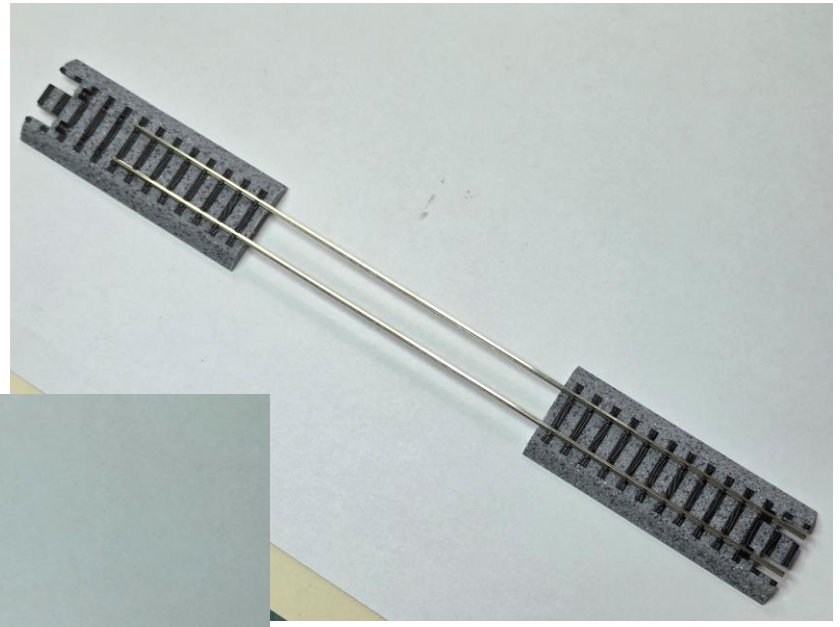
- Force the retaining bulges through the final tie plates

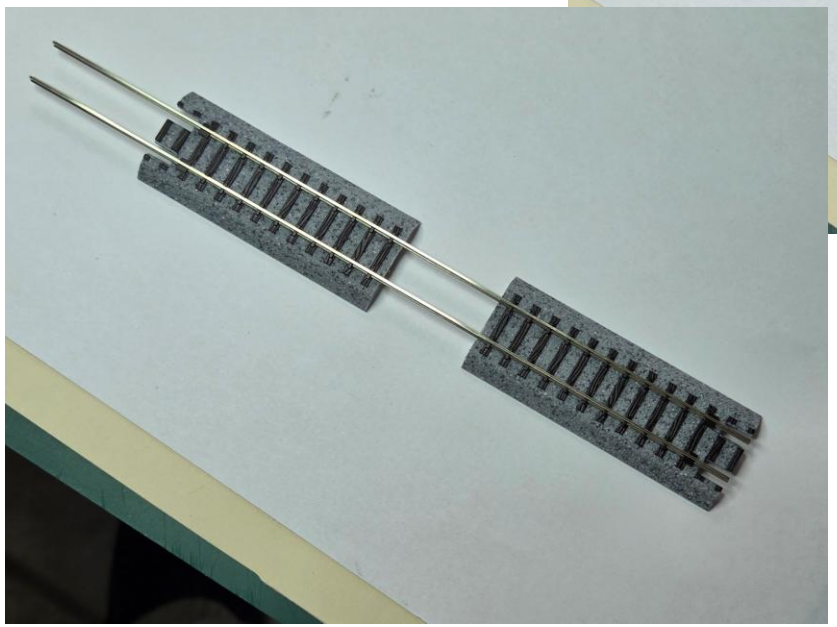


CUSTOMIZING STRAIGHT UNITRACK

REINSTALL RAILS

- Thread the second segment of roadbed through the tie plates

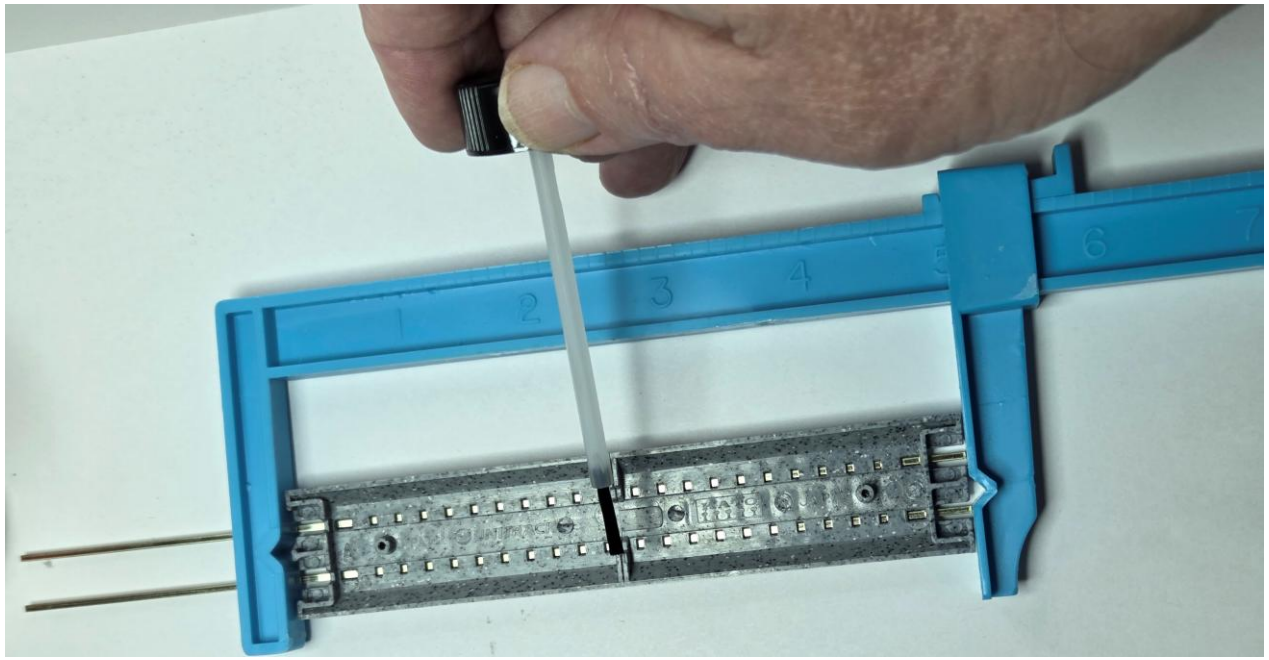




CUSTOMIZING STRAIGHT UNITRACK

CEMENT THE ROADBED

- With the roadbed segments touching lightly, apply liquid styrene cement to the underside of the railbed joint



- With the bar clamp, apply light end-to-end pressure to weld the roadbed

CUSTOMIZING STRAIGHT UNITRACK

CLIP RAILS TO LENGTH

- With the rail nippers, cut the rails flush with the end of the roadbed

- With emery paper or file clean up the rail ends