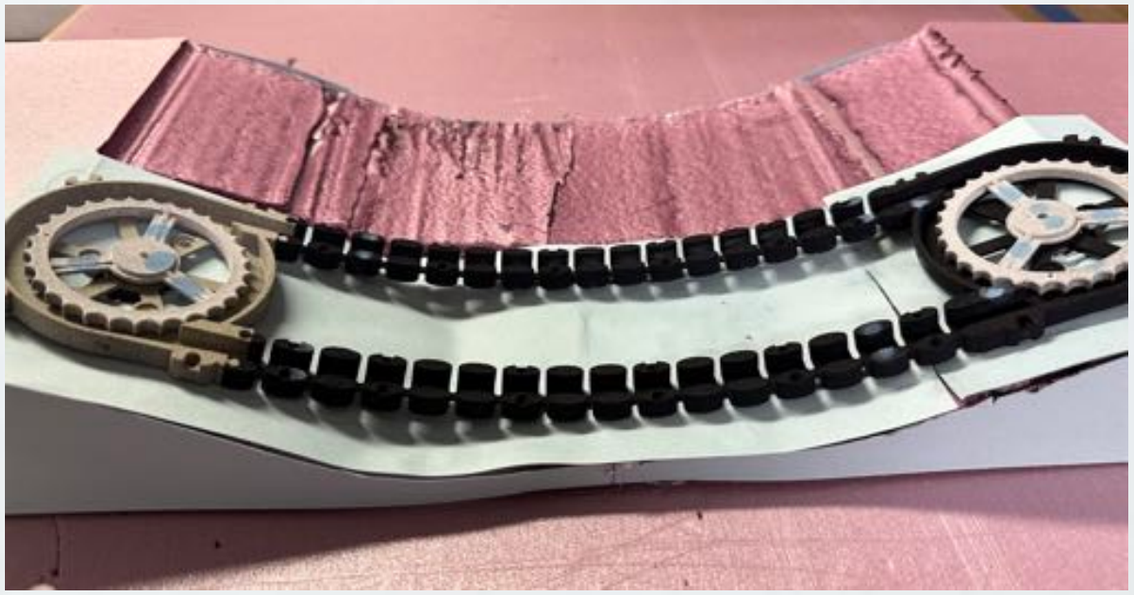
Skateboarding Dan

InvisaTrax™ Transport System

InvisaTrax™ Components List

Quantity	Component Name
1	180° Motor Turn w/60 RPM motor mounted[1]
1	180° Bearing Turn
1	Motor Turn Gear
1	Bearing Turn Gear w/bearing inserted
2	14 Unit Track Piece
2	2 Unit Track Piece
58	Chain Links (1 - 2mm RND)
2	2mm x 2mm Round Magnets - Chain
2	2mm x 0.5mm Magnets - Skateboarder
1	DC Motor Controller
1	Power Supply (battery or 6V DC Adapter)



1 - This assumes that the wires have already been soldered to the motor. See the InvisaTrax™ Transport System Instructions for details.

Additional Materials Used

Material Name & Description

1 in. x 2 ft. x 2 ft. Rigid Foam Board Insulation

92 lb 19.5 x 25.5in Fine Grain Craft Paper - Light Brown

92 lb 19.5 x 25.5in Fine Grain Craft Paper - Black

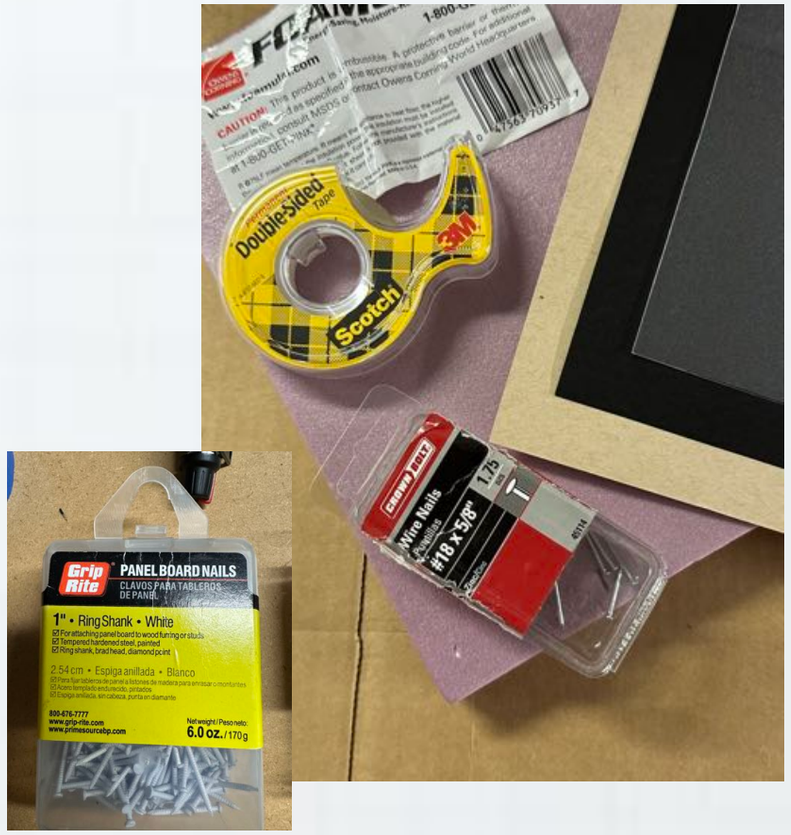
Polycarbonate Sheet (0.010" thick)

#18 x 5/8” Wire Nails

1” Panel Board Nails

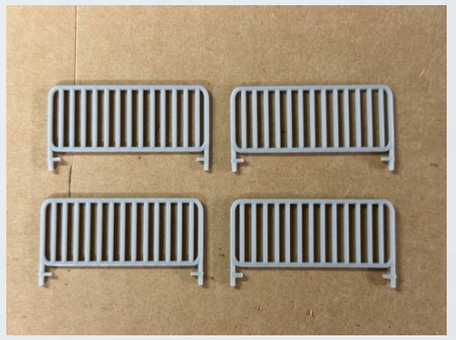
Double-Sided Tape

White Glue



CatzPaw Skateboarding Dan Crouching, S-Scale (1:64)
(https://catzpawstore.myshopify.com/products/skateboarding-dan-crouching?_pos=1&_sid=3948590c3&_ss=r)

CatzPaw Security Fence In-ground, S-Scale (1:64)
(https://catzpawstore.myshopify.com/products/security-fence?_pos=1&_sid=45515cdb1&_ss=r)



Tools Used

Tool Name & Description

Box Cutter (to cut foam board)

3/4" Forstner Bit (to drill hole for motor)

Double-ended Screw Driver: Flat & Philips Head

Tack Hammer

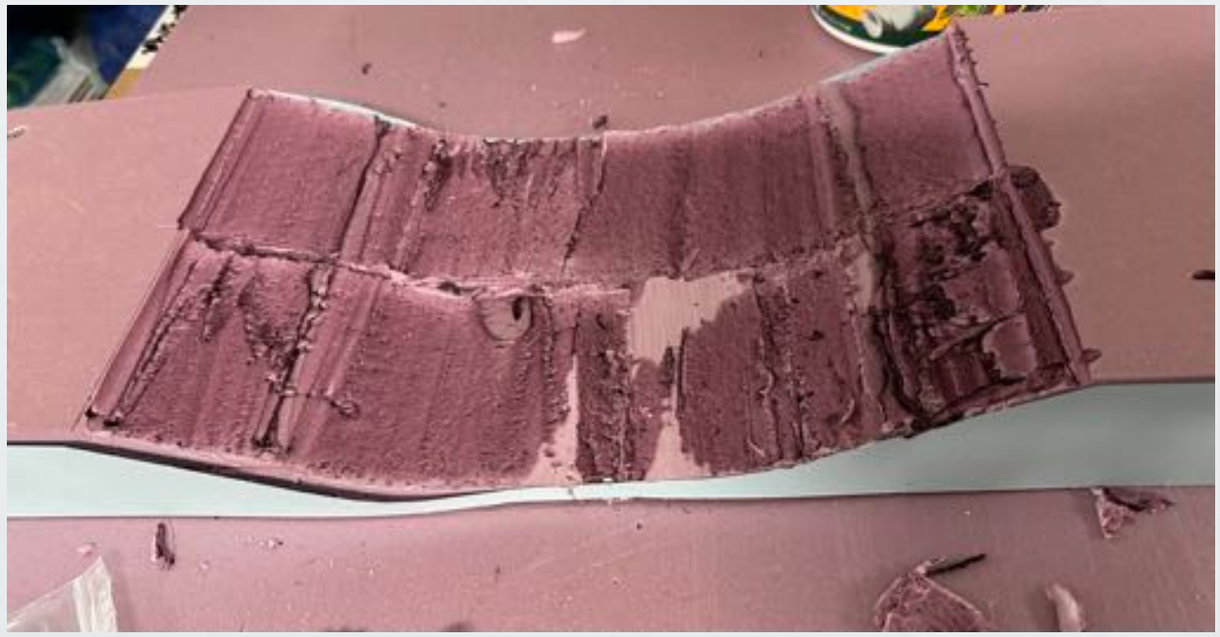
Dremel® Rotary Tool with Router Attachment

1/4" Dremel® Router Bit

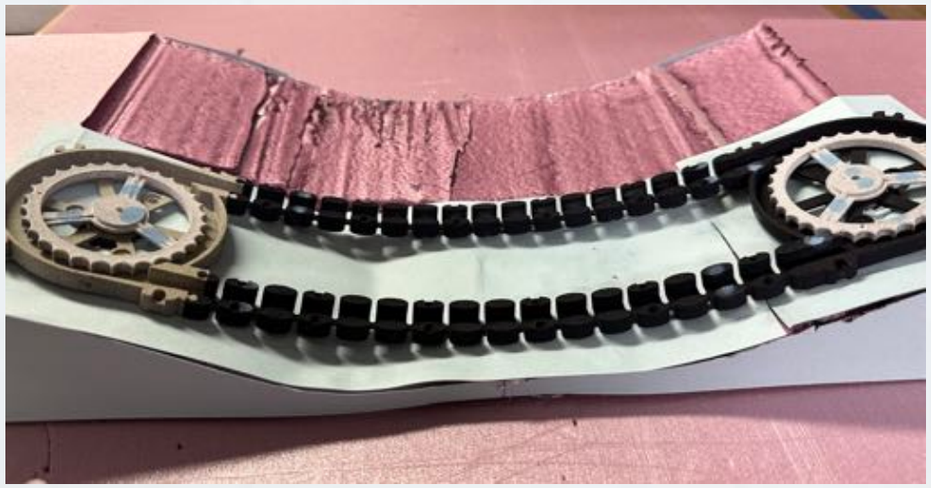
Foam Cutter/Electric Hot Knife

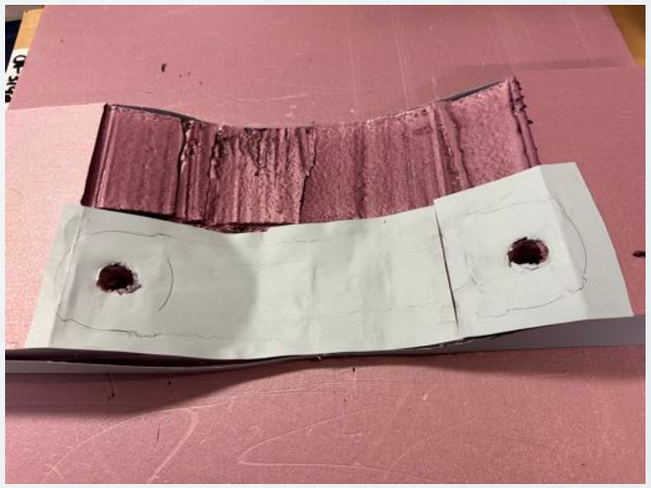
The Process

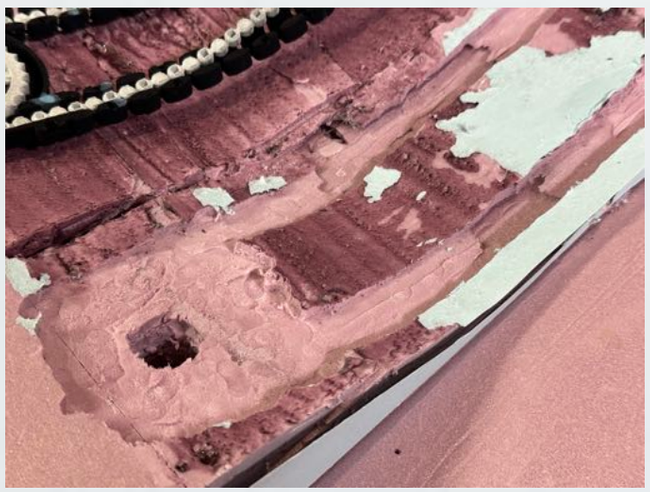
- Cut two (2) pieces of Foam Board Insulation: two (2) feet long by eight (8) inches wide.
- Stack the two pieces together and glue them together then glue them to the Foam Board Insulation. Thus making the framework for the skateboard ramp.
- Draw the desired ramp shape onto a piece of scrap paper. Cut out the shape of the ramp from the paper, making a silhouette of the side of the ramp.
- Attach the ramp design to the side of the stacked pieces using double-sided tape.
- Use the Foam Cutter to form the ramps curve by cutting into the stacked pieces of Foam Board using the attached silhouette as a guide.



- Place scrap paper over the ramp area and tack down with double-sided tape. This step is optional, but it is easier to mark scrap paper versus the foam board.
- Place InvisaTrax™ track pieces in the ramp area and trace around the outside of the track segments to use as a guide for routing a channel for the track.
- Mark where the motor turn will be placed and drill a hole to house the motor.



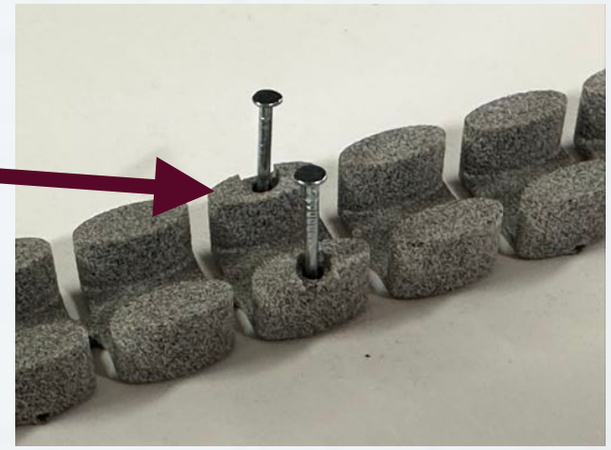


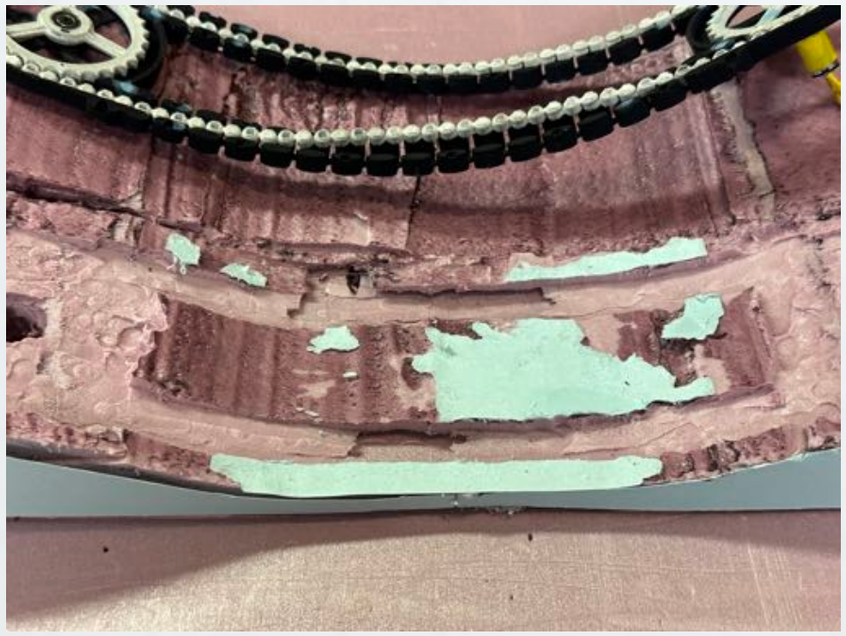


- Use the Dremel® Rotary Tool to route the channel where the track will be placed. Set the router height to match the track height (7.5mm).
- Remove the scrap paper when done.

- Mount the track to the foam boards by placing the track pieces in the routed channel. Line the channel with double-sided tape for extra hold. Add a few wire nails to the track; place the nails in the openings located in the sides of the track sections. Tap with a hammer or push with the flat blade of a screwdriver.

  Leave some mounting holes open which will be used later to attach the Polycarbonate sheet to the base.





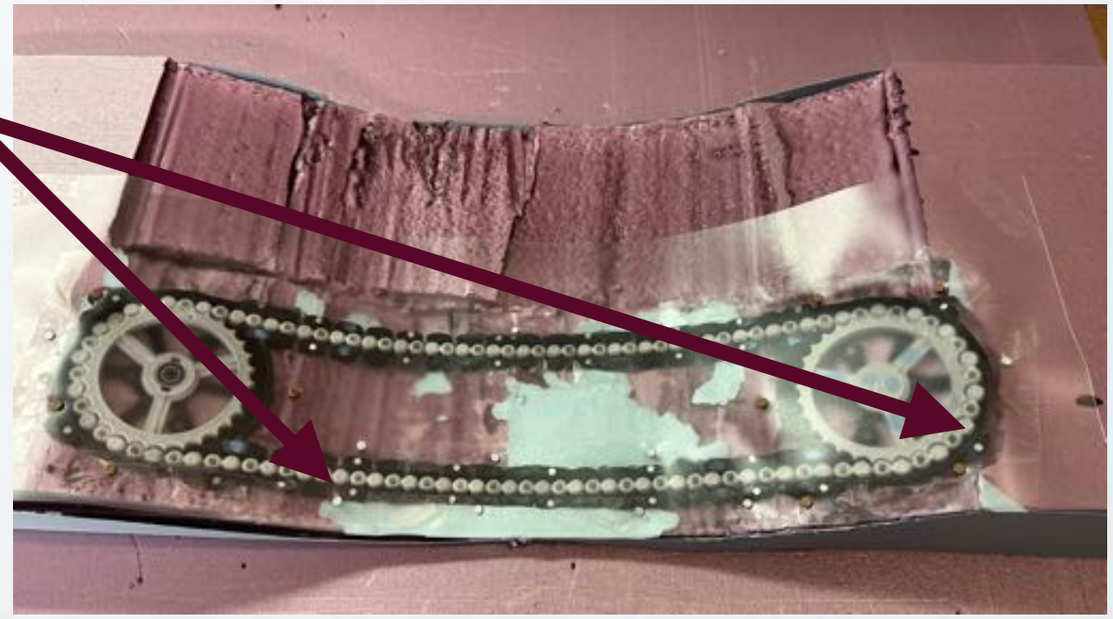
- Assemble the chain links and drop into the track. Be sure to have installed one (1) 2mm round magnet chain link with magnets.

See the InvisaTrax™ Transport System Instructions for details on mounting the magnets.

- Attach the motor and power to the motor controller. Lay the Polycarbonate sheet over the track and hold in place while testing the setup. Run the system at all speeds and both directions.

- Permanently attach the Polycarbonate sheet to the track area using double-sided tape and a few 1″ Panel Board Nails in the remaining track mounting points.

- Test the system again. Be sure the chain is moving freely and not hung-up on the Polycarbonate covering.



- Attach the brass slider with two (2) 2mm x 0.5mm magnets to the bottom of the skateboarding figure using superglue.

- Test the system again. Be sure Skateboarding Dan moves smoothly around the track and transitions the turns without falling over.

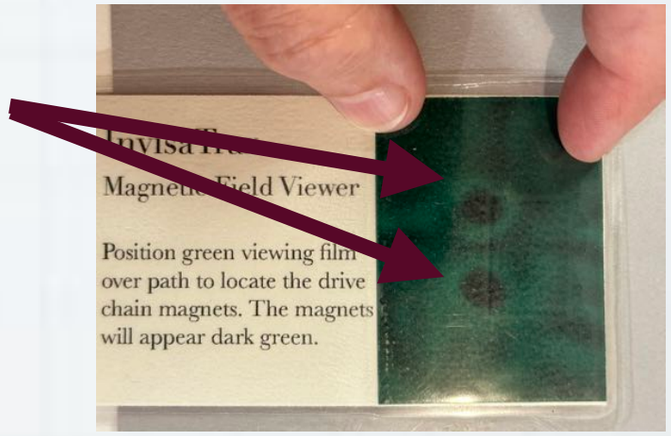
  If Dan has any issues, recheck the clear covering making sure it is securely attached and flat against the top of the InvisaTrax™ track.

See the InvisaTrax™ Transport System Instructions for details on connecting motors to the controller.
See the InvisaTrax™ Transport System Instructions for details on mounting the magnets.

- Cover the Polycarbonate sheet with the light brown paper using either double-sided tape or spray adhesive. Make sure the light brown paper is smooth and well bonded to the Polycarbonate sheet.
- Be sure to smooth out any bubbles or humps in the paper where the track is placed.

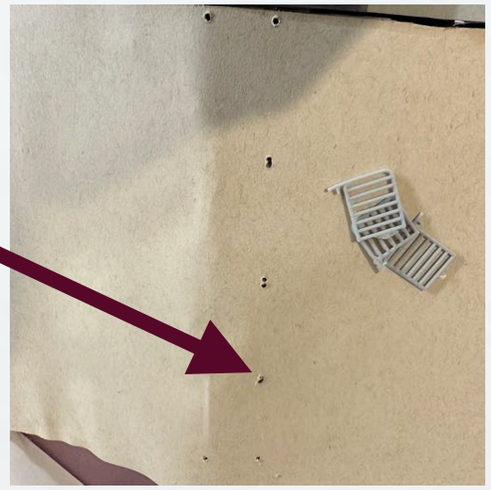
- Using double-sided tape, attach the black paper to the front of the ramp area; cut the black paper to match the ramp form.
- Cover any visible foam board with colored paper or other ground covering as desired.

- Use the Magnetic Field Viewer to locate the chain link with the magnets. Either move the viewer over the area where the track is located or place the viewer over the track and run the system until the magnetic fields appear.



- Test the system again. Making sure Skateboarding Dan has a smooth ride.

- Drill or punch 2mm holes in the top of the ramp where the Security Fence will be mounted.



- Attach the Security Fence to the base by pushing the feet on the fence into the holes created in the previous step.

Proudly Display the Results

https://youtu.be/85KDREfPvJ0?si=Rhc-oNJ3rRGLoFf5