

Tread Foot Brake Kit - St Albert Soap Box Derby Association

The St Albert tread foot brake (“tread” reflects the braking style -tread touches the ground) works with GoKit base design with the addition of two slots added to allow the brake to be installed and operate. **All carts** used at the St Albert Soap Box Derby must use a foot activated braking system – Tread or Hinge or Pivot. **Fountain Tire Race HQ has a base build cart with installed Tread Foot Brake available to view and touch as well as multiple Hinge brake carts. St Albert Tread brakes are available separately.**

The brake design allows for brake reinstall to reflect growth of racer or a new racer. If you are doing a base build cart, suggest the “hood” be installed before the brake system.

After reading the instructions, please send any questions by email to TechBuild@stalbertsoapboxderby.ca



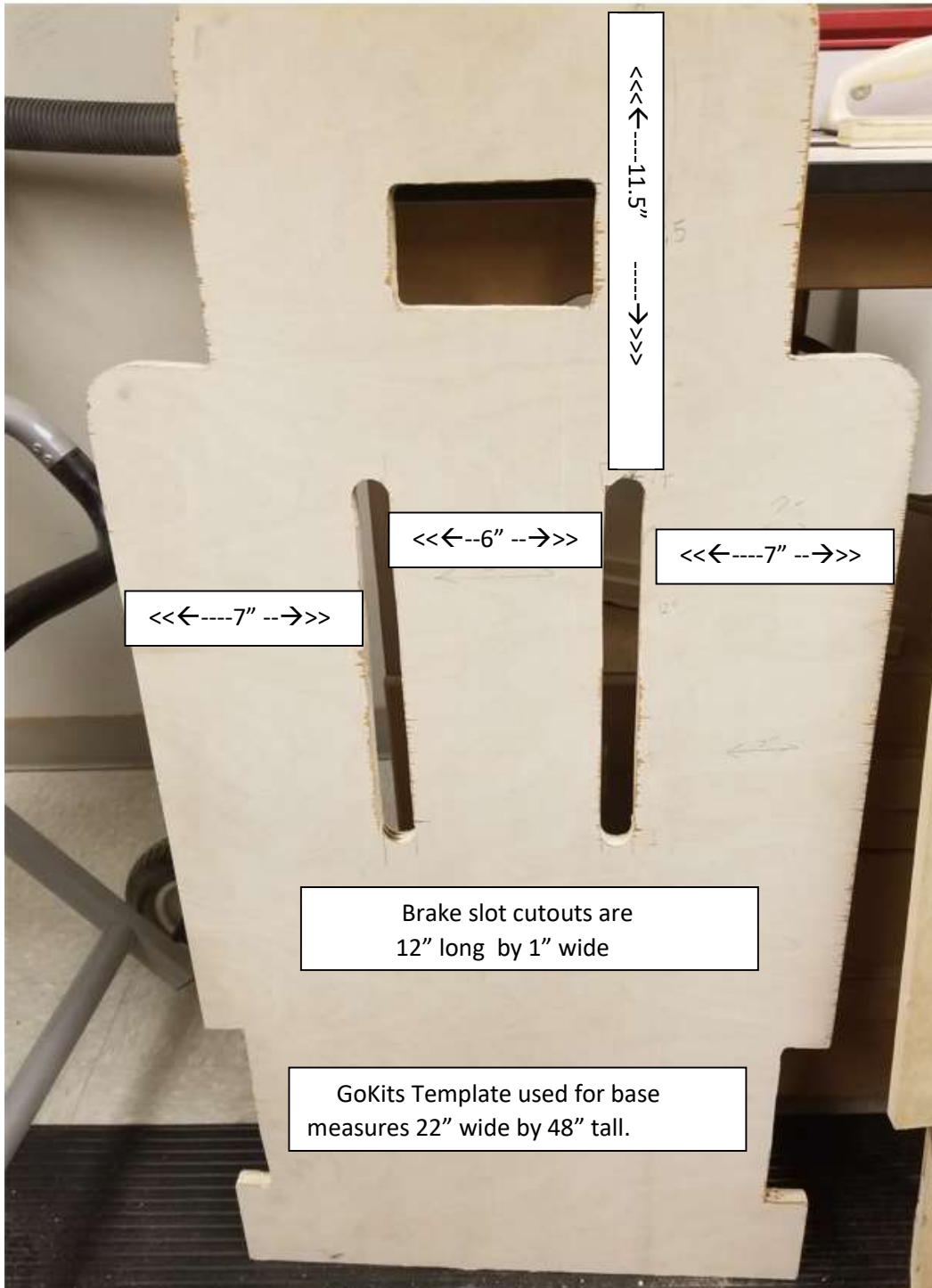
Picture 1. Brake Installed pictures



Picture 2 Brake pictures before install

Build Kit (Go Kit Template with Brake cutouts)

St Albert Build Kits come with the $\frac{3}{4}$ " plywood cut following the GoKit template with the brake slots cut. For builders not using the Build Kit, here are the locations and dimensions for the brake cutouts.



St Albert Brake Installation Steps

The brake comes with all required parts connected. To install, you will be removing some parts of the brake and reconnecting. Please take a picture of the brake with your camera phone so you will have a picture to reference for reassembly.

NOTE: To stop, the racer needs to push forward on the pedals causing the brake to drop and rub on the ground stopping the cart.

The brake should be installed AFTER the hood is installed so the brake can be fastened to the hood sides.

- 1) Remove the cotter pins and the front bar
- 2) Remove the two pedals.
- 3) From the underside, slip the side rods through the slots in the cart base.
The rods should be pointing forward.
- 4) Reattach the front bar and reinsert the cotter pints through the support towers.
- 5) Reattach the pedals to the brake.
- 6) With cart on floor, have racer sit and temporarily position the brake tower and pedals to the racers estimated leg length. With the racer seated in the cart, adjust the brake tower and pedal location. Confirm the placement allow for the racer **push length** to stop the cart. Mark holes on base and tower.
- 7) Drill $\frac{1}{4}$ holes in the floor and tower to allow attachment. With the bolts and screws included, attach the towers to the cart base and hood securely.
- 8) Position and mark spring attachment on bottom of cart – should be “relaxed” not stretched. Brake should be about 1” above bottom of cart.
- 9) Attach spring to base of cart. (see picture on page 1)
- 10 Confirm brakes by having Racer sit and press brakes to confirm distance and spring function are working.

In person opportunities are present at the Fountain Tire April 9 and May 14 Saturday 3-5 PM sessions to bring your cart for review or ask questions before build.

All carts MUST be inspected and weighed on June 11, 2022.

All carts will go through the Race Day checklist on Race Day before racing.

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(Rev 2 March 15, 2022)