How to Create Your Own Bungee Brake Block

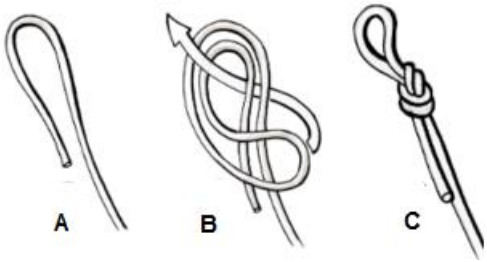
Start with your Convertible Stop Block.

Purchase the following:
1 - 20 ft marine grade bungee cord (note: The bungee stretches approximately 175% of it's length)
2 – carabiners/spring clips
1 – heavy duty eye screw

Step 1
UNBOLT the 4 bolts holding the Brake Block together and pull the Brake Block apart.

STEP 2
BOLT the Brake Block back together with the zip line cable running through the middle. Make sure the eye bolt is closest to the start of the zip line and facing downwards.

Tie one end of the bungee using a double knot (see diagram below) leaving a loop at the end, hook a spring clip *(carabiner shown in photo*) into the loop and connect onto the eye bolt on your brake block ensuring that the carabiner/spring clip is securely closed.

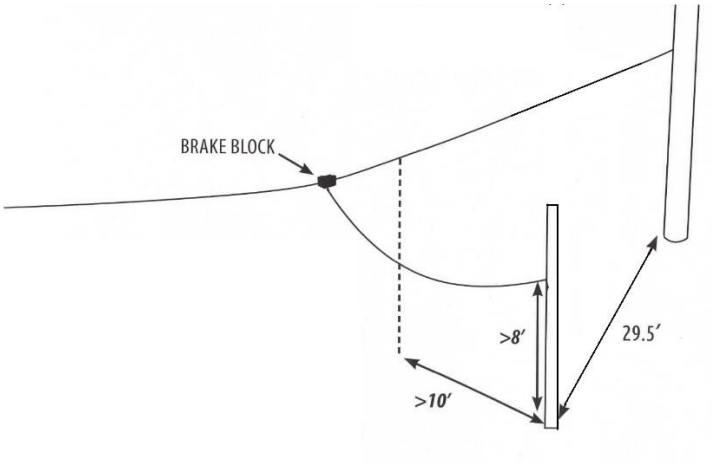


STEP 3
DETERMINING where to place your bungee anchoring point. Your bungee anchoring point can either be a tree or a pole strongly embedded in the ground.

The formula for placement of your bungee anchor if your original bungee cord is 20 feet long:
20 feet minus 3 feet *(accounts for knots)* x 1.75 = distance from Bungee anchor to End Anchor Point
(20 - 3 = 17 x 1.75 = 29.5 ft).

This anchor must also be located at least 10 feet off to the side of the zip line run.

Screw the eye screw about 8 feet up from the bottom into a tree or pole. [Drilling a ¼" pilot hole can be helpful for screwing the eye screw into your brake anchor tree or pole] Tie the other end of the bungee using a double knot (review diagram showing proper way to tie your knot) leaving a loop at the end, hook a spring clip into the loop and connect onto the eye screw that you have placed on your bungee anchor, ensuring that the spring clip is securely closed. ***The eye screw can be replaced with an eye bolt which can be inserted right through the tree or pole and tightened with a washer and nut.
****WARNING**** Eye screw must embed to full depth in solid wood. Gently scrape away any bark that prevents the screw from embedding fully into the wood.



STEP 4
Testing your Brake. ***DO NOT ATTEMPT TO RIDE YOUR ZIP LINE WITHOUT FIRST TESTING.***

Make sure you test your Brake Block using your trolley with weights attached. Send a test weight from very beginning of zip line to test bungee brake system.

Do not allow bungee to stretch to more than 175% of the bungee's length, bungee may fail and injure zip line riders or bystanders.

First measure to avoid overstretching of the bungee - have a helper stand near the end point of your zip line and have them drop a bright object or marker on the ground below the test weight where the bungee stretches to its maximum point. Measure from the object to the bungee anchor point. You should not have any impact with the ending anchor point (final tree or pole).

Depending on the weight of the riders as well as the speed and distance of your zip line, you may need to adjust your bungee anchoring point:
If the bungee is overstretching or impacting with the ending anchor point with too much force, there are some things you can do:

- unscrew the eye screw from the current bungee anchoring point and move it to a new location further away, OR
- shorten your bungee, (do not shorten by more than 2 feet), OR
- reduce the cable slope, OR
- increase the cable sag to slow the rider's speed down.

This is simply trial and error to get the correct safe stopping point if you have a speedier run. However, the general calculations you used in Step 3 will work if your zip line does not exceed the 6% drop.
REMEMBER TO CHECK ALL YOUR EQUIPMENT AND CONNECTIONS OFTEN TO MAKE SURE THAT NOTHING HAS BEEN DAMAGED, MOVED, STRETCHED OR FRAYED – REPLACE ALL WORN PARTS BEFORE USING YOUR ZIP LINE.

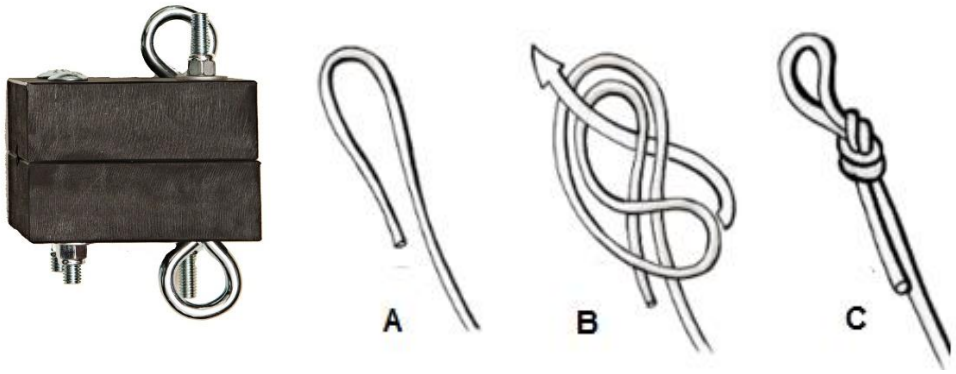
For more safety on longer ziplines

Start with your Convertible Stop Block:

Purchase the following:
2 – 20 ft marine grade bungee cords
1 – eye bolt
4 – carabiners/spring clips
2 – heavy duty eye screw

Step 1
UNBOLT the 4 bolts holding the Brake Block together and pull the Brake Block apart. Remove one of the stationary bolts and replace with an eye bolt – see diagram below for placement

STEP 2
BOLT the Brake Block back together with the zip line cable running through the middle. Make sure the eye bolts are closest to the start of the zip line. Tie one end of each bungee using a double knot (see diagram below) leaving a loop at the end, hook a spring clip into the loop and connect onto the eye bolt on your brake block ensuring that the spring clip is securely closed.



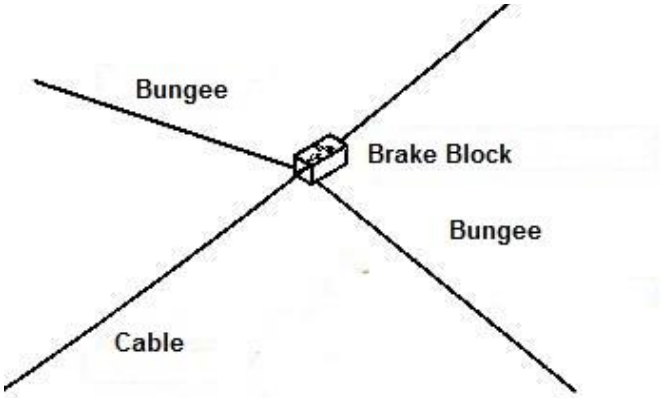
STEP 3
DETERMINING where to place your bungee anchoring point. Your bungee anchoring point can either be a tree or a pole strongly embedded in the ground. As with Kits 1 & 2 you want to find your bungee anchoring points, using the same formular place one bungee anchoring point on each side of your zip line and continue with same directions for securing your point. This will provide a safe stop for your rider.

The formula for placement of your bungee anchor if your original bungee cord is 20 feet long:
20 feet minus 3 feet *(accounts for knots)* x 1.75 = distance from Bungee anchor to End Anchor Point
(20 - 3 = 17 x 1.75 = 29.5 ft).

This anchor must also be located at least 10 feet off to the side of the zip line run.

Screw the eye screw about 8 feet up from the bottom into a tree or pole. [Drilling a ¼" pilot hole can be helpful for screwing the eye screw into your brake anchor tree or pole] Tie the other end of the bungee using a double knot (review diagram showing proper way to tie your knot) leaving a loop at the end, hook a spring clip into the loop and connect onto the eye screw that you have placed on your bungee anchor, ensuring that the spring clip is securely closed. ***The eye screw can be replaced with an eye bolt which can be inserted right through the tree or pole and tightened with a washer and nut.

****WARNING**** Eye screw must embed to full depth in solid wood. Gently scrape away any bark that prevents the screw from embedding fully into the wood.



DO NOT ALLOW THE BUNGEE TO SAG INTO THE RIDER'S WAY, IT CAN ENTANGLE THE RIDER.

STEP 4

Testing your Brake. ***DO NOT ATTEMPT TO RIDE YOUR ZIP LINE WITHOUT FIRST TESTING.***

Make sure you test your Brake Block using your trolley with weights attached. Send a test weight from very beginning of zip line to test bungee brake system.

Do not allow the 2 bungees to stretch to more than 175% of the bungee's length, bungee may fail and injure zip line riders or bystanders. Ensure the two bungees are parallel to each other (see diagram above) to allow for safe movement/impact.

First measure to avoid overstretching of the bungees – have a helper stand near the end point of your zip line and have them drop a bright object or marker on the ground below the test weight where the bungee stretches to its maximum point. Measure from the object to each of the bungee anchor points. You should not have any impact with the ending anchor point (final tree or pole).

Depending on the weight of the riders as well as the speed and distance of your zip line, you may need to adjust your bungee anchoring point.

If the bungee is overstretching or impacting with the ending anchor point with too much force, there are some things you can do:

- unscrew the eye screw from the current bungee anchoring points and move them to a new location further away, OR
- shorten your bungee, (do not shorten by more than 2 feet), OR
- reduce the cable slope, OR
- increase the cable sag to slow the rider's speed down.

This is simply trial and error to get the correct safe stopping point if you have a speedier run. However, the general calculations you used in Step 3 will work if your zip line does not exceed the 6% drop.

REMEMBER TO CHECK ALL YOUR EQUIPMENT AND CONNECTIONS OFTEN TO MAKE SURE THAT NOTHING HAS BEEN DAMAGED, MOVED, STRETCHED OR FRAYED – REPLACE ALL WORN PARTS BEFORE USING YOUR ZIP LINE.