

INTREPID TRADERS

HIKE - CLIMB - EXPLORE

**DIY
CLIMBING WALL
INSTALLATION GUIDE**

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INSTALLING A VERTICAL CLIMBING WALL (on an existing wall)

- These instructions deal with building a vertical wall with no overhangs.
- Average grip coverage is 7-12 climbing grips per m2 depending on users of the wall and difficulty of the route.
- For younger children, more grips per m2 will make the grips closer together and easier to climb.
- For older children and adults, less grips per square m2 will make the grips further apart and more challenging to climb.

BRICK/CONCRETE WALL INSTALLATION

Materials:

Climbing Grips/Holds

Fittings:

Cap screws (1 per grip)

Expansion anchors to anchor cap screw (for brick and concrete walls) (1 per grip)

Tools:

Allan Key (to tighten grips to wall).

Impact Drill and masonry bit.

Method:

- Drill one hole per grip in the wall, using the masonry bit.
- Ensure to drill straight.
- Remove sheath from the expansion anchor. Place the Cap Screw through the grip and attach the sheath to the cap screw at back of the grip. Stop when it touches the back of the grip (before it starts expanding).
- Place the grip with the cap screw and shield into the hole and tighten using the allen key.

P.S. for thick plaster or very smooth walls, we suggest placing a small blob of "No More Nails" or a small rubber backing on the back of the grip to stop it slipping.

PLYWOOD PANEL INSTALLATION - EVEREST & LHOTSE

Materials:

Climbing Grips/Holds

Plywood Panel

- 1 x Timber planks cut into 5 blocks (one for each corner and the middle of the panel)
- 5 x Expansion Anchors (1 per block)
- 5 x 125mm Galvanised Hex Screws (1 for each anchor)
- 5 x Washers (1 for each hex screw)
- 20 Wood screws - 55mm x 5mm (4 for each block)
- T-nuts (1 per grip)
- Sandpaper (100, 180 and 220 grit)
- Wood Filler
- Wood Primer
- Paint (High Quality Enamel or your preferred option)

Fittings:

- Cap Screws (1 per grip)

Tools:

- Allan Key (to tighten grips)
- Impact Drill, 10mm wood bit for t-nut holes, 8mm wood bit for drilling holes for blocks) and 14mm masonry bit to drill expansion anchor holes.
- Screwdriver to screw in wood screws..

Method:

To prepare the panel:

- Mark the spots for drilling t-nut holes (the amount of t nut holes depends on the pattern you are using)
- Using the 10mm wood drill bit, drill 10mm holes from the front of the panel to the back for the T-nuts (to prevent blowout and splintering clamp the panel to a sacrificial board and use masking tape over top of the predetermined drill holes)
- Use a brush to sweep shavings and dust from the panel.
- Using 100 grit sandpaper evenly sand the panel to remove imperfections and fine hairs.
- If there are knots or gashes in the wood use wood filler to fill in the imperfections and let dry.
- Prepare the surface of the panel for priming by brushing dust off and wiping down with a moist cloth.
- Using a wood primer evenly paint a coat of wood primer over all surfaces of the panel (top, back and sides). You may need to do this in two or more sessions to allow surfaces to dry.
- Once the primer has dried take 180 grit sandpaper and lightly sand any imperfections still remaining on the panel.
- Brush and wipe down the panel to remove excess dust.
- Using your preferred paint, paint the first coat over the panel evenly over all sides. You may need to do this in two or more sessions to allow surfaces to dry.
- Now using the 220 grit sandpaper very lightly remove any dirt or dust that may still remain.
- Paint the second coat of paint on your panel and allow it to dry (Depending on your preference you may choose to do more than 2 coats of paint).

- Turn the panel over so that the face down (use a towel or cloth between the panel and the surface you are hammering on to prevent scratching) and using a hammer, hammer in the T-nuts into the t-nut holes (be sure to hammer in straight so that t-nuts lie flush with the board)

Fitting the panel to the wall:

- First fit the 5 blocks to the panel - one for each corner and one in the centre of the panel (you can keep them place by gluing them to the panel)
- Drill 1(one) through the centre of the panel and backing block using the 8mm wood bit.
- Measure and mark the wall for positioning - begin with the top of the panel, then the middle and lastly the bottom.
- Use the 14mm Masonry bit to drill 100 - 25mm holes into the the wall.
- Remove the sheaths from the expansion anchors, put the galvanised hex screws through the holes in the blocks and attach the sheaths at the back of the screws
- Place the panel against the wall, knock anchors into the holes, and tighten.
- Attach the grips by inserting the cap screw through the grip and into the preferred t-nut hole, and slowly turn the cap screw as you insert it into the hole with the allen key. Don't force the cap screw in as you may push the T-nut out the back (some thread of the cap screw will protrude from the back of the t nut)
- Tighten the grips ensuring not to overtighten thinner/smaller grips as they may crack or split, you can use a thin rubber backing between the grip and panel to prevent spinning.

Installation alternative:

- Measure and mark the wall for positioning of the panel.
- Drill 4 x 8mm holes in the planks of wood. (20cm from top / bottom, and one in the middle)
- Place the planks against the wall and mark the 4 holes using the drill for both sides of the panel.
- Move the planks, and drill the holes in the wall 120 - 125cm deep with the 14mm masonry bit.
- Remove the sheaths from the anchor shield bolts, put the set screws through the holes in the plank and attach the sheaths at the back.
- Place the planks against the wall, anchor shields with set screws into the holes, and tighten.
- Place the panel against the planks, and screw through both sides into the plank with the wood screws (roughly 30cm apart).
- Touch up paint/varnish over the screw holes for cosmetics.
- Attach the grips by inserting the cap screw through the grip, and slowly turn the cap screw as you insert it into the hole with the allen key. Don't push, as you may push the T-nut out the back (some thread will protrude from the back of the t nut) Tighten the grips ensuring not to overtighten thinner/smaller grips.

PLYWOOD PANEL INSTALLATION - KILIMANJARO & KENYA

Materials:

Climbing Grips

Plywood Panel
5 x Expansion Anchors (1 per block)
5 x 125mm Galvanised Hex Screws
5 x Washers (1 for each hex screw)
T-nuts (1 per grip)
Sandpaper (100, 180 and 220 grit)
Wood Filler
Wood Primer
Paint (High Quality Enamel or your preferred option)

Fittings:

Cap Screws (1 per grip)

Tools:

Allan Key (to tighten grips)
Impact Drill, 10mm wood bit for t-nut holes, 8mm wood bit for drilling fixing holes) and
14mm masonry bit to drill expansion anchor holes.

Method:

To prepare the panel:

- Mark the spots for drilling t-nut holes (the amount of t nut holes depends on the pattern you are using)
- Using the 10mm wood drill bit, drill 10mm holes from the front of the panel to the back for the T-nuts (to prevent blowout and splintering clamp the panel to a sacrificial board and use masking tape over top of the predetermined drill holes)
- Use a brush to sweep shavings and dust from the panel.
- Using 100 grit sandpaper evenly sand the panel to remove imperfections and fine hairs.
- If there are knots or gashes in the wood use wood filler to fill in the imperfections and let dry.
- Prepare the surface of the panel for priming by brushing dust off and wiping down with a moist cloth.
- Using a wood primer evenly paint a coat of wood primer over all surfaces of the panel (top, back and sides). You may need to do this in two or more sessions to allow surfaces to dry.
- Once the primer has dried take 180 grit sandpaper and lightly sand any imperfections still remaining on the panel.
- Brush and wipe down the panel to remove excess dust.
- Using your preferred paint, paint the first coat over the panel evenly over all sides. You may need to do this in two or more sessions to allow surfaces to dry.
- Now using the 220 grit sandpaper very lightly remove any dirt or dust that may still remain.
- Paint the second coat of paint on your panel and allow it to dry (Depending on your preference you may choose to do more than 2 coats of paint).

- Turn the panel over so that the face down (use a towel or cloth between the panel and the surface you are hammering on to prevent scratching) and using a hammer, hammer in the T-nuts into the t-nut holes (be sure to hammer in straight so that t-nuts lie flush with the board)

Fitting the panel to the wall:

- Measure and mark the wall for positioning of the panel.
- The panel has 5(five) fixing points, beginning with the upper middle point, then two upper sides and lastly the two lower points.
- Using the drill and 14mm masonry bit, drill 100mm into masonry in the above order, checking that the holes in the panels align with the drilled holes in the wall.
- Fit expansion anchors into drilled holes, making sure they are flush with the wall and remove existing bolt from the anchor.
- Starting with the upper middle fixing point on the panel, place a washer over a 125mm hex screw and place through the hole on the panel into the drilled hole in the wall. Tighten the set screw into the wall.
- Fit and tighten the next four set screws.
- Attach the grips by inserting the cap screw through the grip, and slowly turn the cap screw as you insert it into the hole with the allen key. Don't force or push the cap screw, as you may push the T-nut out of the back of the panel (some thread may protrude from the back of the t-nut)
- You can rearrange grips on the panel, using the allen key loosen the cap screw and gently pull the grip from the panel (rubber backing on the panels prevent the grips sticking to the panel scratches)
- When tightening the grips ensure not to overtighten grips as they may crack or split.



Cap Screws



Climbing Grips



Anchor Shields



Allan Key



Impact Drill



Masonry/Wood
Bit



No More Nails



Plywood Panel



Timber Plank



Set Screws



Wood Screw



Washer

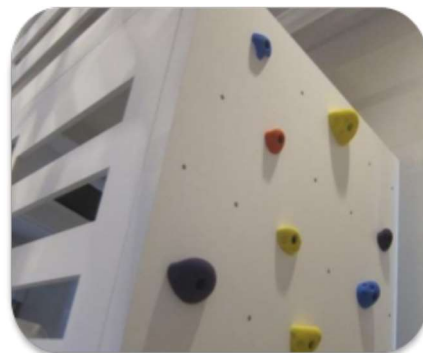
PROJECT IDEAS



Bedroom Walls



Playrooms



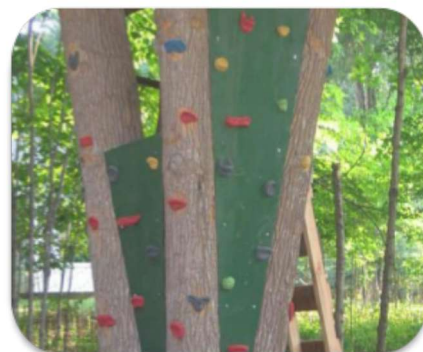
Bunkbeds



Play sets



Living Areas



Trees



Themed
Bedrooms



Obstacle
Courses



Schools



