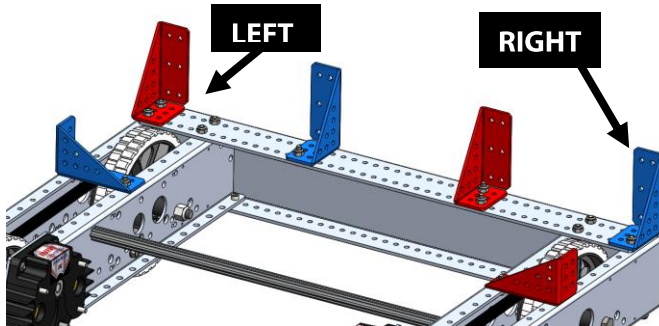


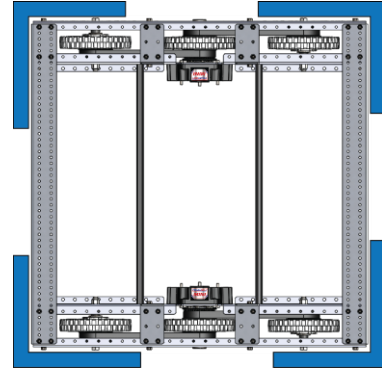
AndyMark AM14U3 Bumper Kit – am-3152

| Component | Part Number | QTY |
|---------------------------------|------------------------|-----|
| Left Triangular Bumper Bracket | am-3210L | 6 |
| Right Triangular Bumper Bracket | am-3120R | 6 |
| #10-32x1 Thumb Screw | am-1390 | 16 |
| #10-32 3 Prong Tee Nut | am-1143 | 32 |
| #10-32 SHCS x 0.625" long | am-1007 | 24 |
| #10-32 Nylock Nut | am-1042 | 24 |
| Additional Items | | |
| Robust Red/Blue Fabric | am-2675/am-2676 | |
| ¾" Robust Wood | | |
| Industrial Staples | | |
| Optional Items | | |
| Outside Corner Bracket | am-3233 (not included) | 4 |
| Wood Screws | | 24 |

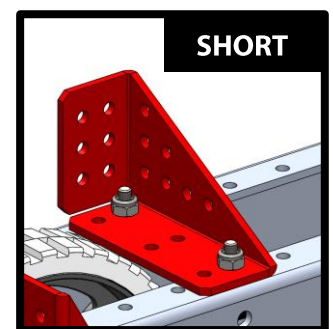
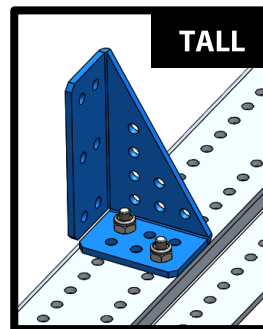
Step 2: Attach brackets as shown to the chassis. The left and right brackets can be oriented to support both the corners of the chassis and the edges of the bumper planks. For longer bumper segments, additional brackets may be necessary to provide enough support.



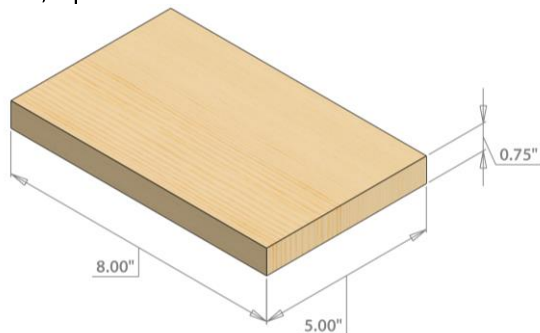
Step 1: Plan out which edges of the drive base frame perimeter will be covered with bumpers. Ensure this design complies with all bumper rules. Brackets should be attached to the frame in the corners, at the ends of bumper segments, and behind any long bumper lengths.



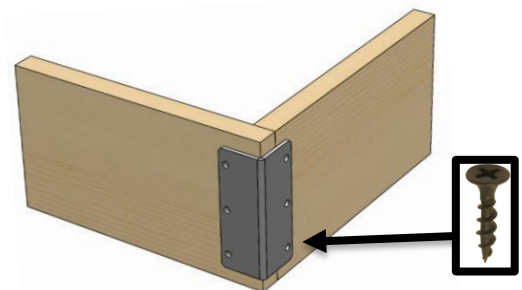
Step 3: Attach the brackets to the chassis frame using 10-32 SHCS x 0.625" (am-1007) long. The brackets on the ends and corners of the chassis will be in the 'tall' orientation, whereas the brackets on the sides of the chassis will be in the 'short' orientation to allow two screws to attach the brackets to the frame.



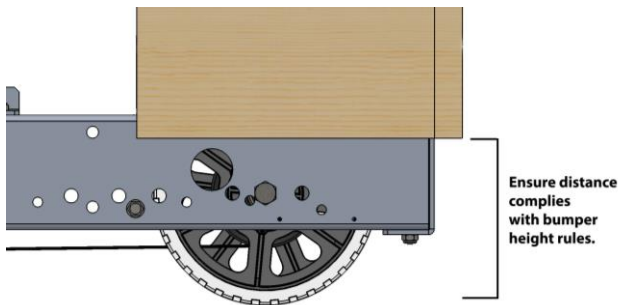
Step 4: Cut ¾" wood into bumper planks that are 5" tall and a minimum 8" long. For corner sections that overlap, a longer plank may be needed to comply with bumper rules. For corner bumpers, 8 planks are needed for each red set and each blue set.



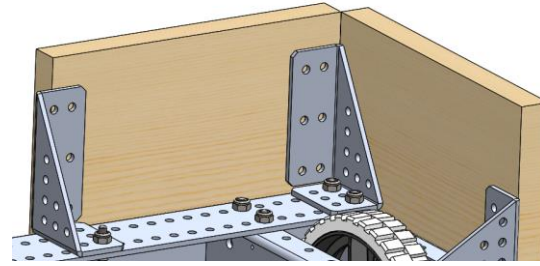
Step 5: Bumpers can either be made in straight sections or in sections that wrap around corners. To ensure that bumpers designed to wrap around corners are rigid, it is recommended that the corner edge be strengthened with an angled corner connector such as am-3233 (not included).



Step 6: Place the wood on the edge of the frame at desired bumper height. Ensure bumper height complies with all bumper rules. Extra wood spacers can be cut to the desired height to help level the bumpers while installing on the frame.

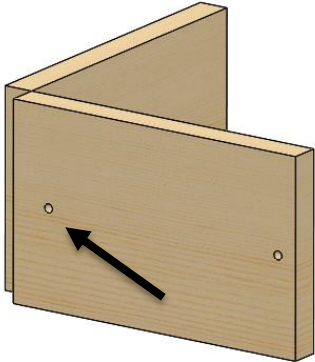


Step 7: Securely hold the planks and ensure the edges are flush with the side of the chassis. Use a 13/64" drill bit to drill through existing holes in the bracket through the wood planks.

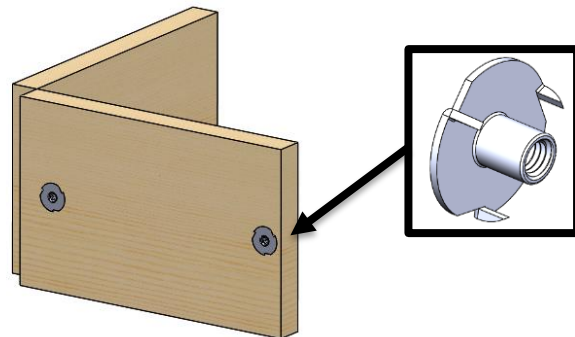


NOTE: After drilling, it is helpful to label which bumper plank goes to each location on the chassis in order to easily re-attach later.

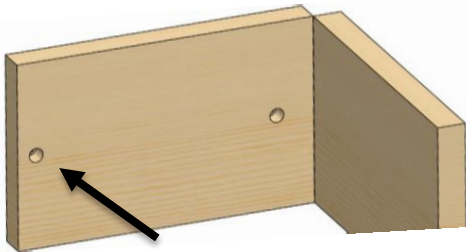
Step 8: Remove the planks from the chassis and drill out the 13/64" holes with a 7/32" drill bit. This will allow the tee nuts to fit inside the hole.



Step 9: Pound in the Tee Nuts (am-1143) into the outside faces of the bumper planks using a hammer. The face of the tee nut should be approximately flat with the wood.



Step 10: Carefully counter-bore the inside holes of the bumpers with a 3/8" drill bit to make more space for the thumb screws. Be sure to only drill the wood and stop once the drill contacts the Tee Nut.



Step 11: Cut noodles to a length that matches the wood planks. Cut fabric large enough to wrap around noodles and wood with enough extra for stapling. If adding team numbers onto fabric it may be useful to do this before adding to bumper segments.

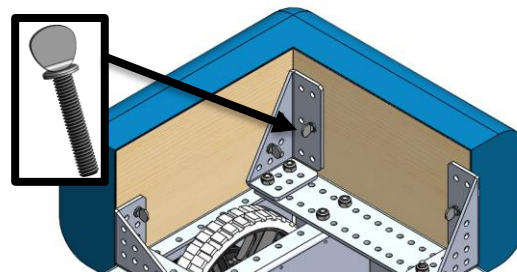


Step 12: Wrap fabric tightly around noodles. No noodles should be showing after wrapping. Staple fabric evenly along edge of bumper and trim any extra fabric.



Repeat steps 4-12 for second colored set.

Step 13: Attach bumpers in the locations marked on the bumper planks with the provided thumb screws for easy removal



For more tips and tricks visit AndyMark.com/bumper.