

2017 Robogames Mech Warfare Target Plates Updates

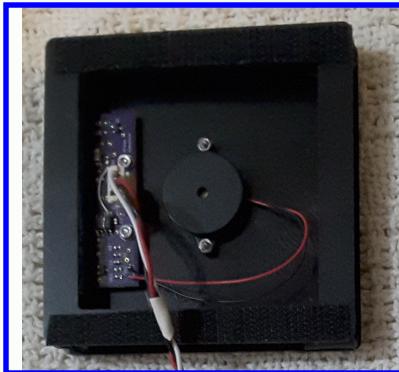
- For 2017 Robogames Mechwarfare, Official Target Plates will be provided by the event organizers for all competitors to use.
 - Only the official target plates will be allowed during the event.
 - These plates will be calibrated and validated by the event organizers prior to the event.
 - Competitors are encouraged to make their own target plates (plans will be provided) prior to the event to verify targets system functionality and fit checks, but only the official target plates will be used at the event.
- The Target Transponder still needs to be provided by the competitor.
 - Software updates will be needed to be performed on the transponder. The transponder must be accessible to the event organizers prior to the event start to upgrade the software.
- An in depth study on rationale and selection of the target plates can be found here:

<http://forums.trossenrobotics.com/showthread.php?8079-Piezo-Target-Plate-Testing-Results>

Target Plate Mounting Rules

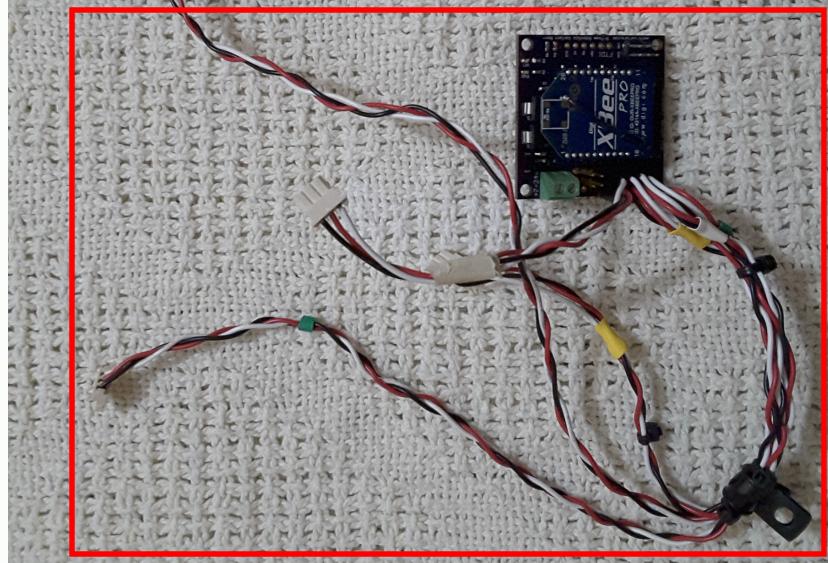
1. Target plates must be reasonably and FIRMLY mounted on a Mech, with their entire face located between 2" and 22" off the ground,
2. Plates should be mounted on a flat, vertical surface, using two strips of velcro, so that the target plate is perpendicular to the ground.
3. Target panels cannot be mounted to legs.

Mech Warfare Scoring System



Target Plate

- Supplied by Mech Event Organizers



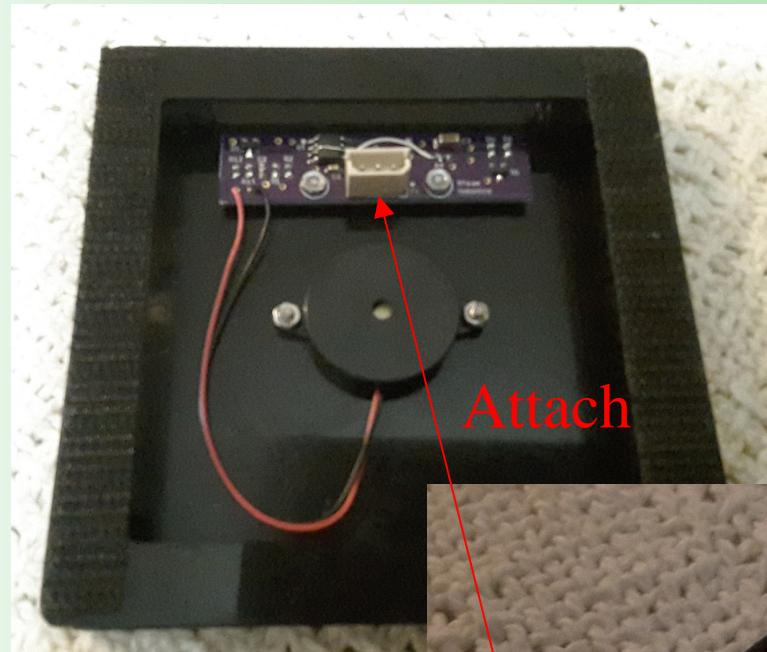
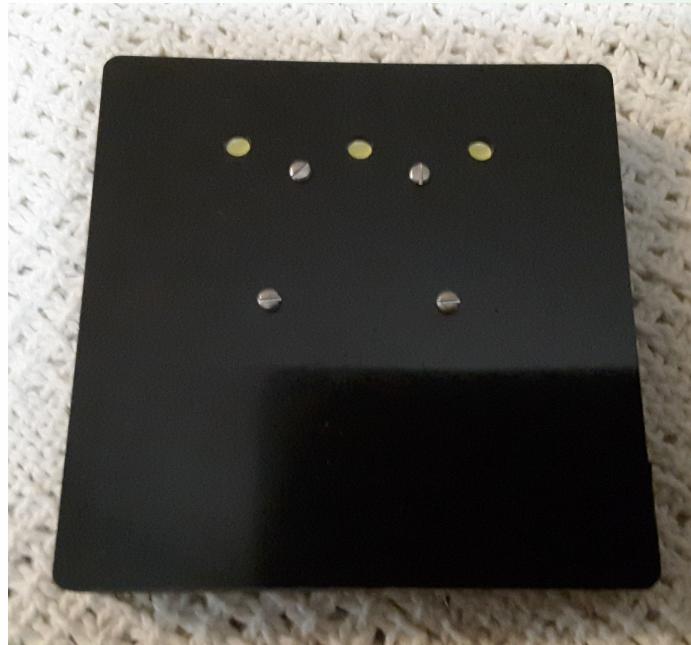
Transponder and Harness

- Supplied by Competitor
- Mount on Mech

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Target Plates

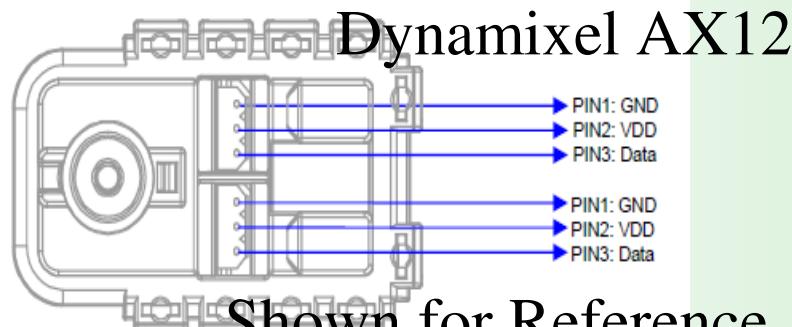


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Target System Connectors

Target Plates use the Standard Dynamixel
Molex Connectors and Pinout Definitions



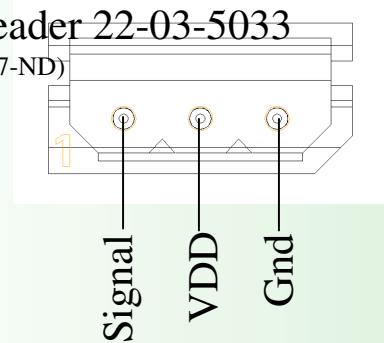
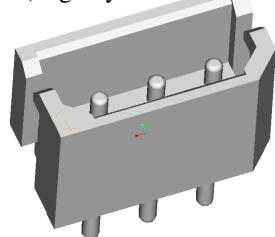
Shown for Reference

Target Plate Connector

This is on the Target Plates provided
by event organizers.

Molex Connector Header 22-03-5033

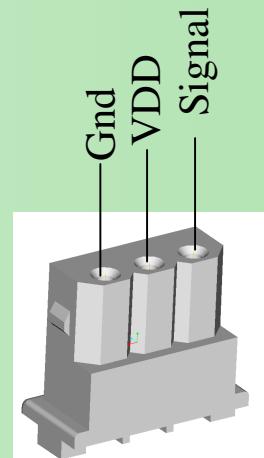
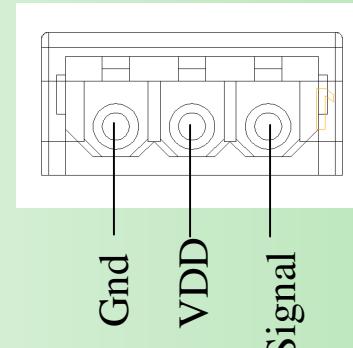
(Digikey Part Number WM18887-ND)



Transponder Harness Connector

This MUST be provided by
Competitor!

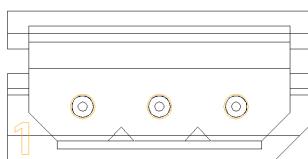
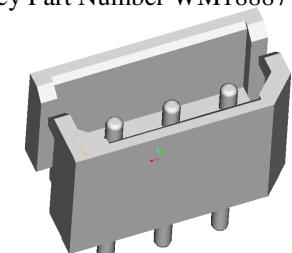
Molex Connector Housing 50-37-5033
(Digikey Part Number WM18874-ND)



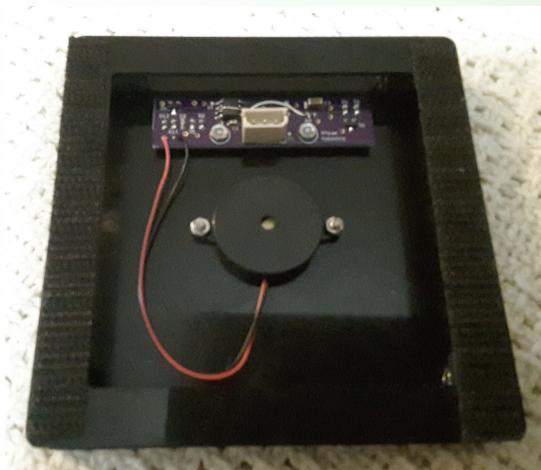
Target Plate Connections

Molex Connector Header 22-03-5033

(Digikey Part Number WM18887-ND)

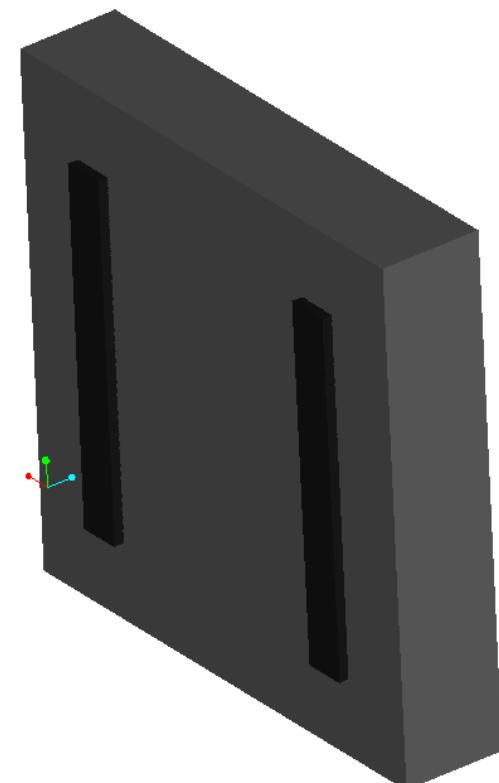
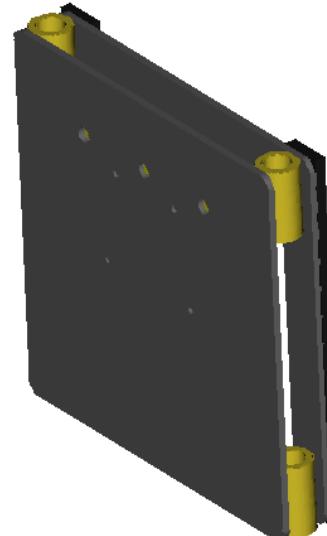
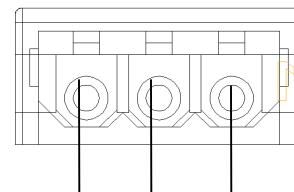
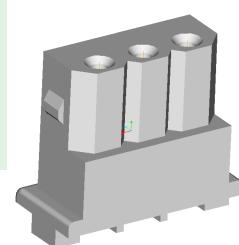


Gnd
Signal
+5V



Molex Connector Housing 50-37-5033

(Digikey Part Number WM18874-ND)

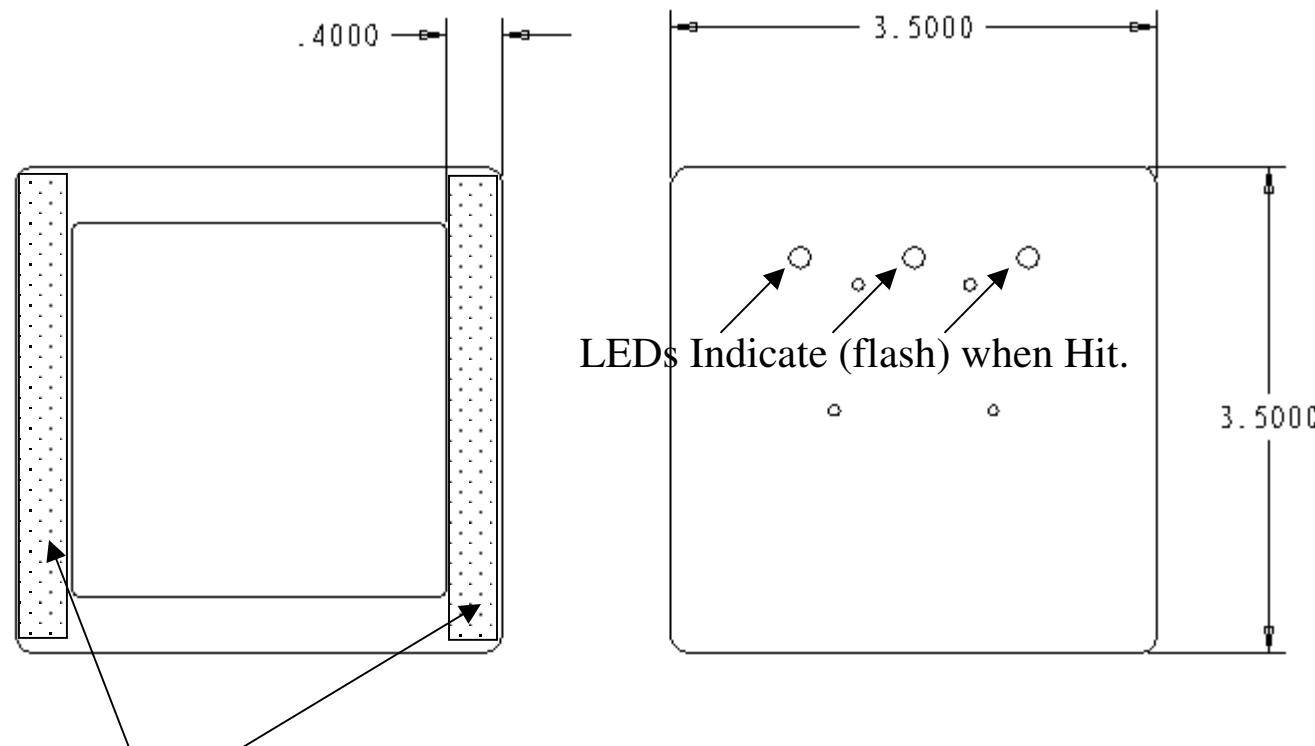


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Target Plate Dimension

Dimensions in inches.



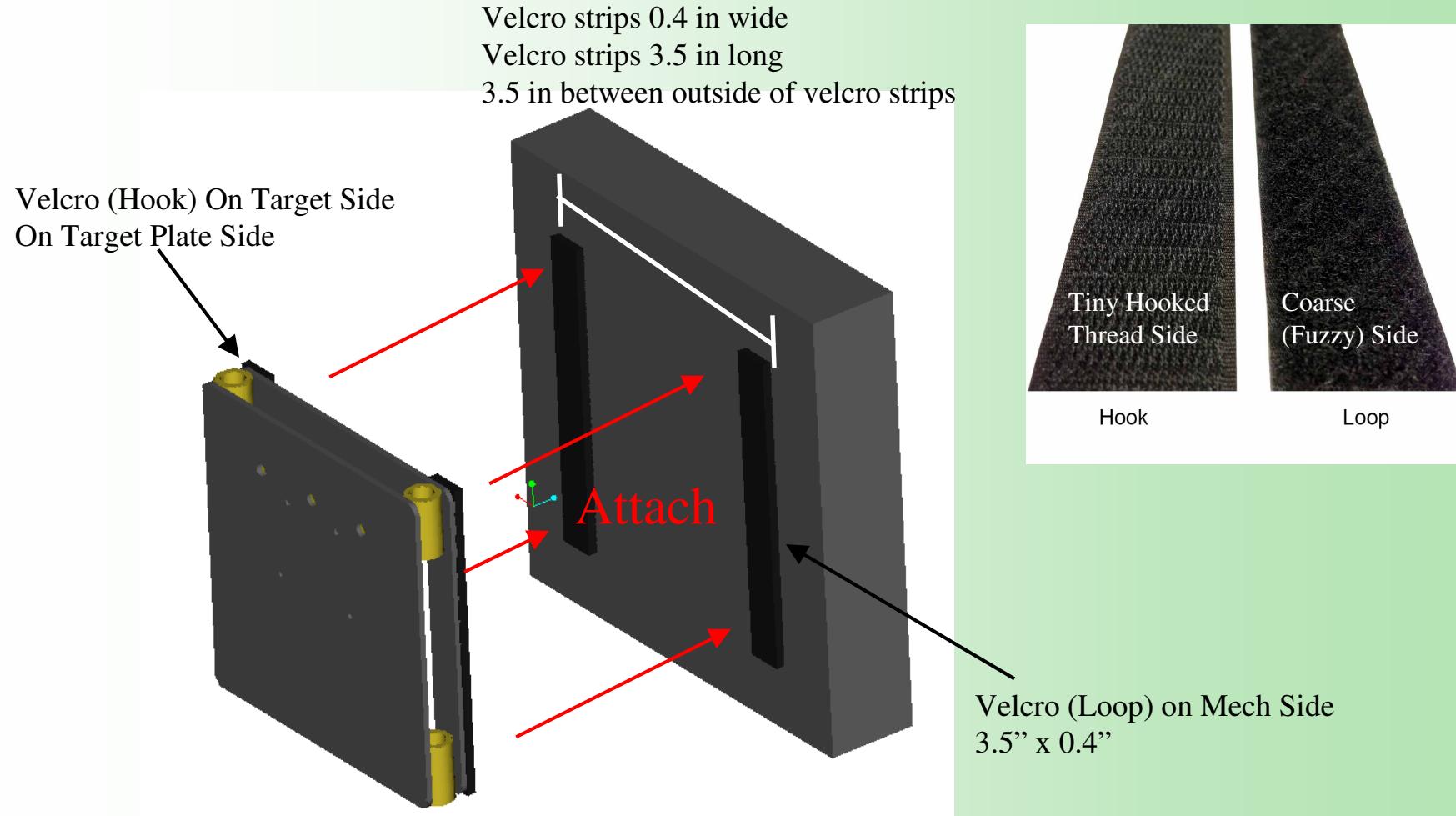
Velcro Strips (Loop Side)
3.5" x 0.4"

Target Plate Thickness is approx. 0.5"

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Example: Acceptable Target Plate Attachment

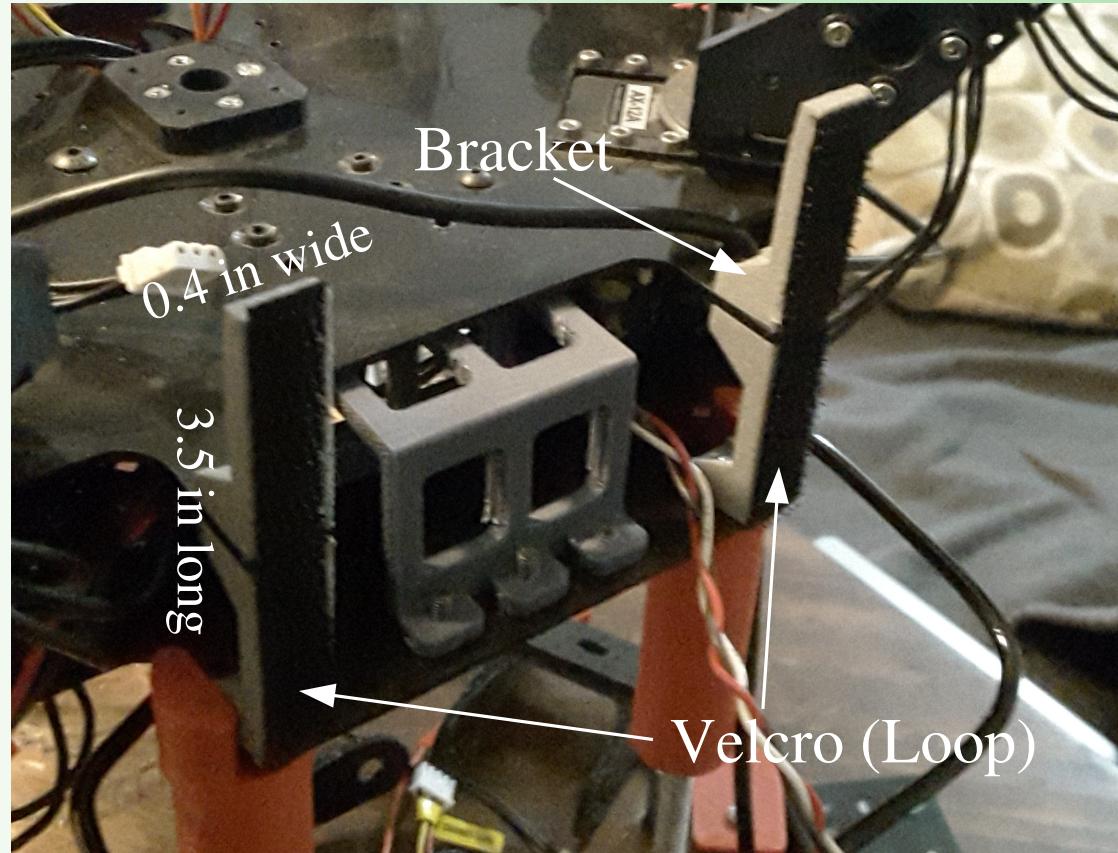


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Another Example: Acceptable Target Plate Attachment

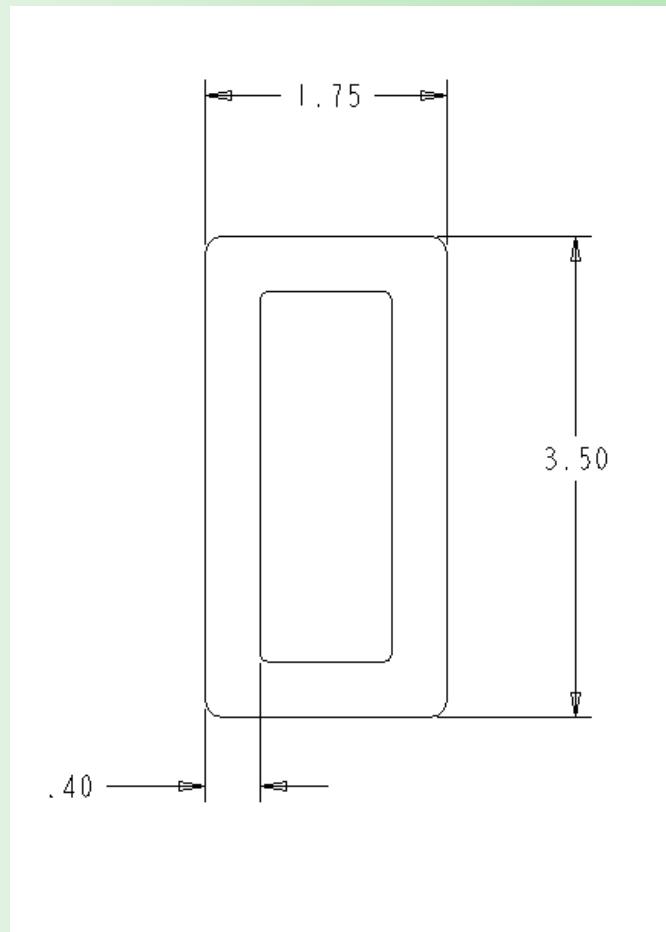
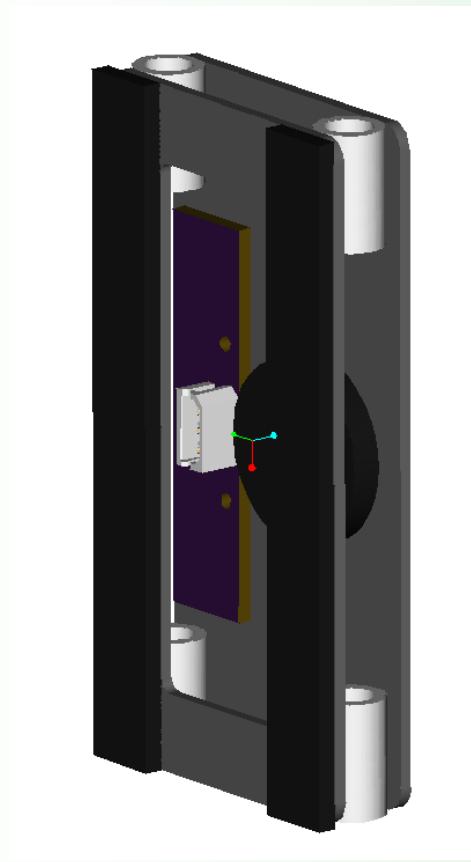
This Mech has no good flat spots on the body to mount the target plates, so mounting brackets have been made to mount the target plates.



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Half Target Plate



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