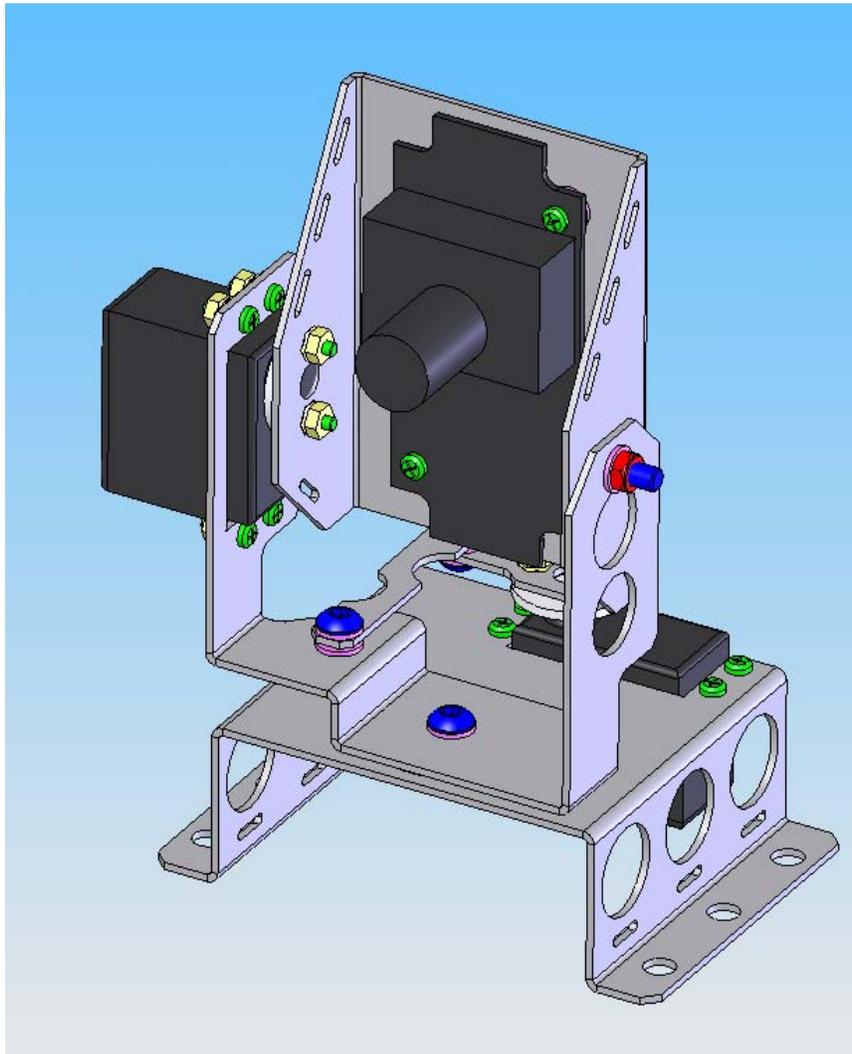


CMUCAM – Pan-Tilt Mechanism Assembly Instructions



Innovation First, Inc
FRC-PANTILT-01, 2006

Drill This hole to 1/8" ϕ

Drill This hole to 1/8" ϕ

Retainer Screw



Install Rubber Inserts (4x)

For (2x) Servos:

Remove Servo Retainer Screw.
Remove Plastic Servo Horn.
Match Drill Holes to 1/8" ϕ (2x) As Shown.
Install Rubber Inserts (4x)

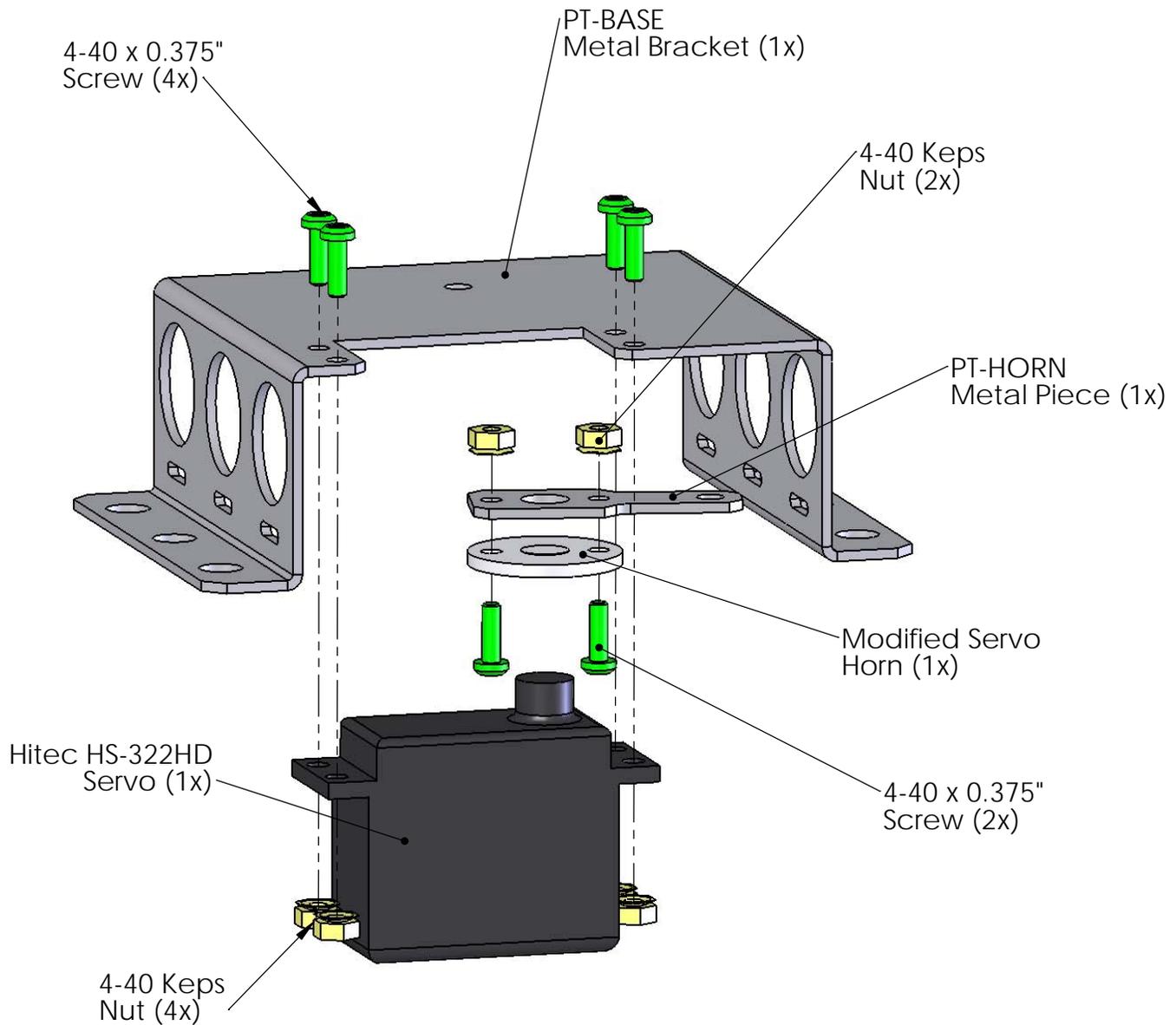
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Pan Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY1



Bolt the PT-HORN piece onto the Modified Servo Horn using (2x) 4-40 Screws and Keps Nuts.

Bolt the Servo onto the PT-BASE Metal Bracket using (4x) 4-40 Screws and Keps Nuts.

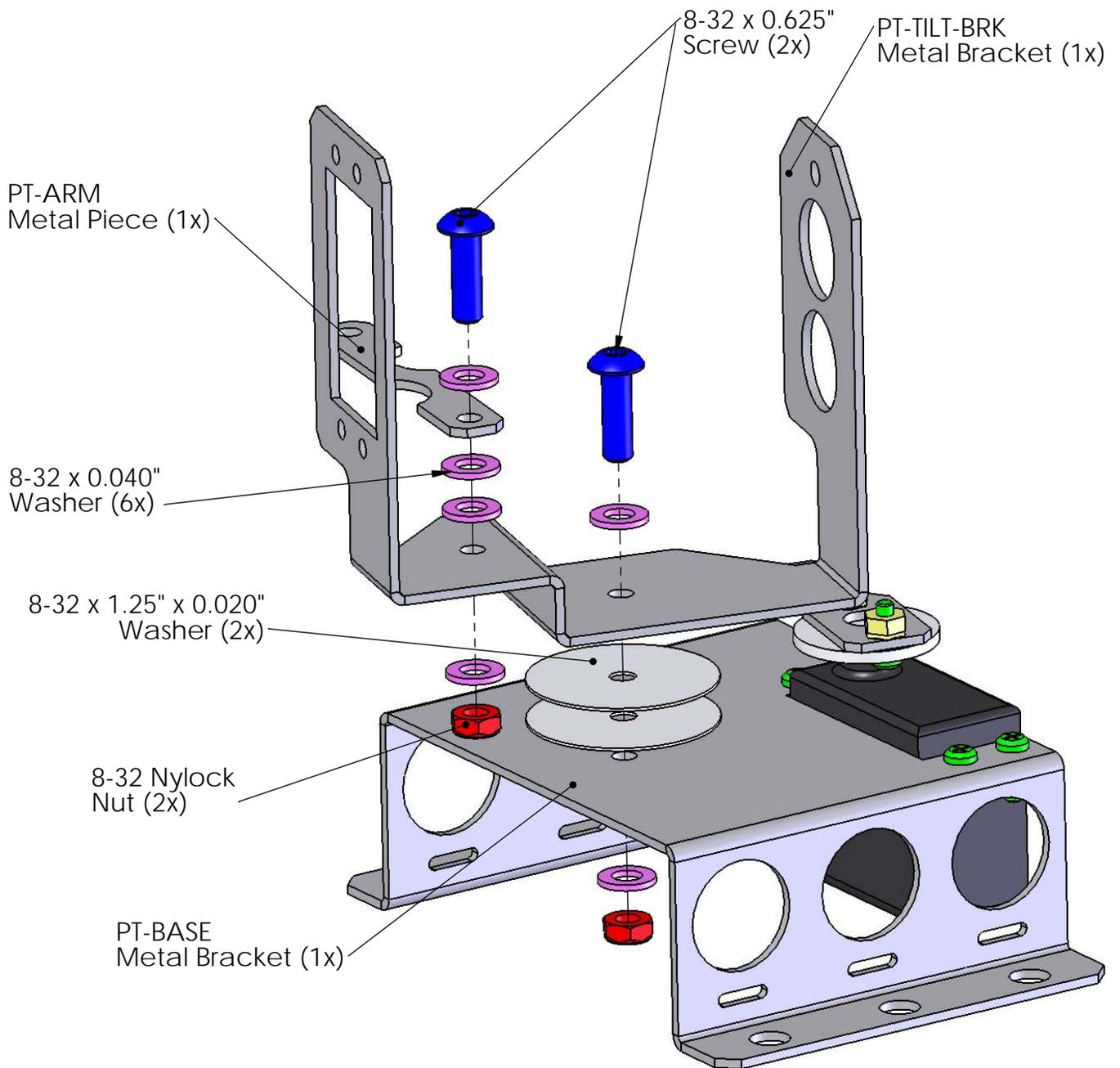
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Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY2



Form a joint between the PT-ARM and PT-TILT-BRK. Form a joint between the PT-TILT-BRK and PT-BASE.

Use washers as shown above to reduce joint friction.

Tighten screws as much as possible, while still allowing for smooth joint movement.

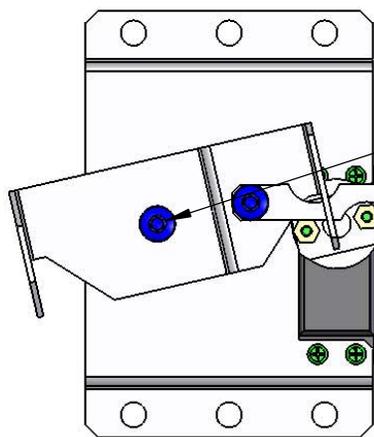
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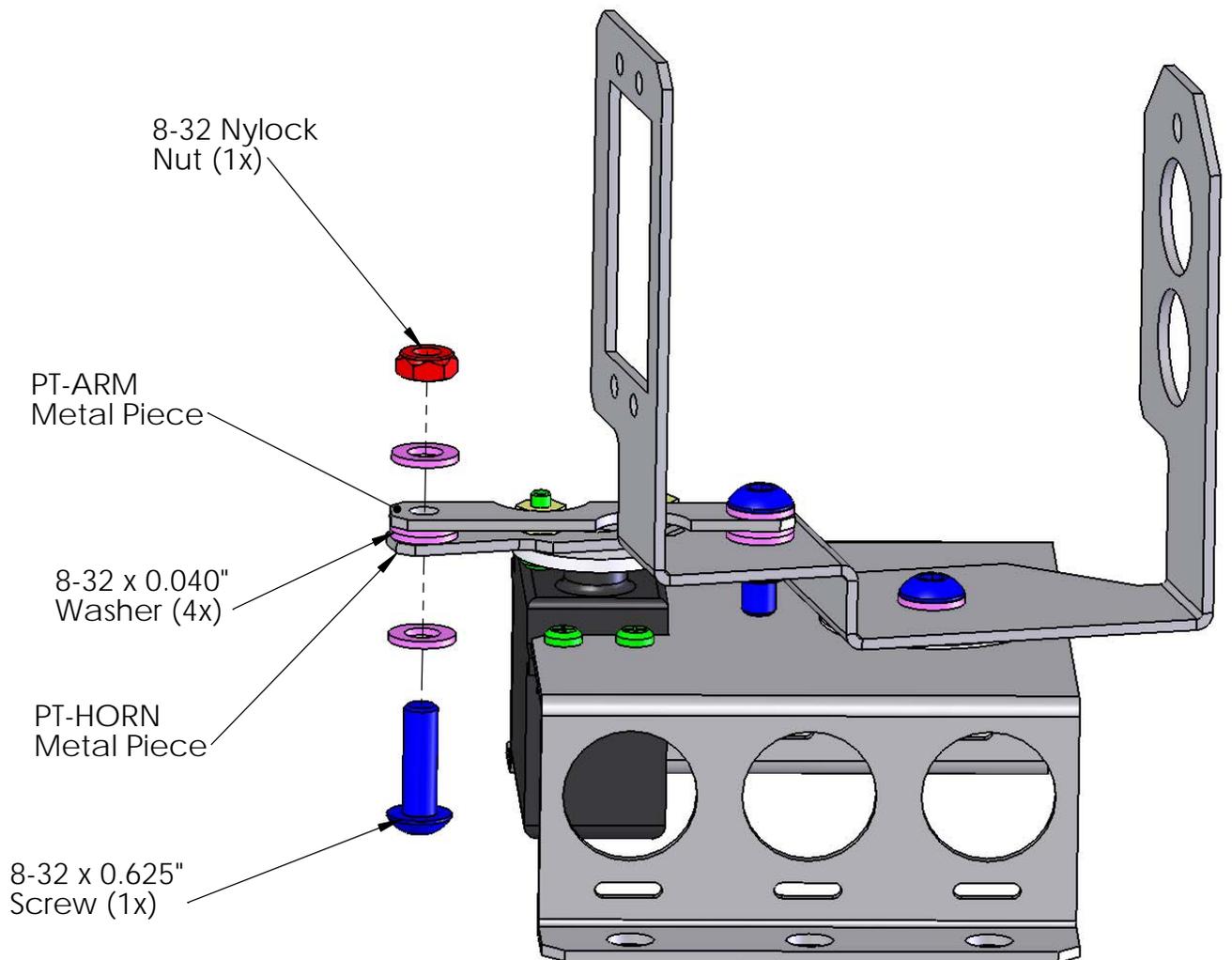
Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY3



Rotate Assembly so Screw Hangs off Edge of Base for easy Installation.



Form a joint between the PT-ARM and PT-HORN Metal Pieces.

Use an 8-32 bolt and nylock nut, with small nylon washers to reduce joint friction.

Tighten screws as much as possible, while still allowing for smooth joint movement.

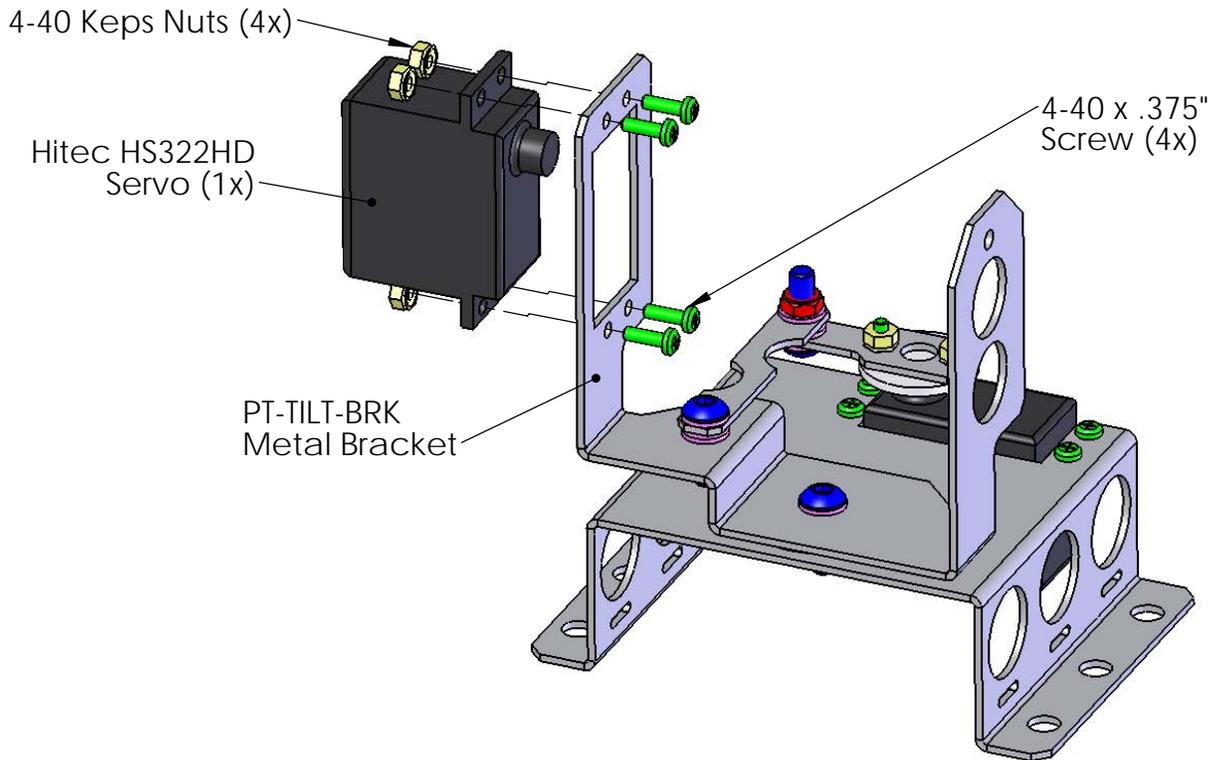
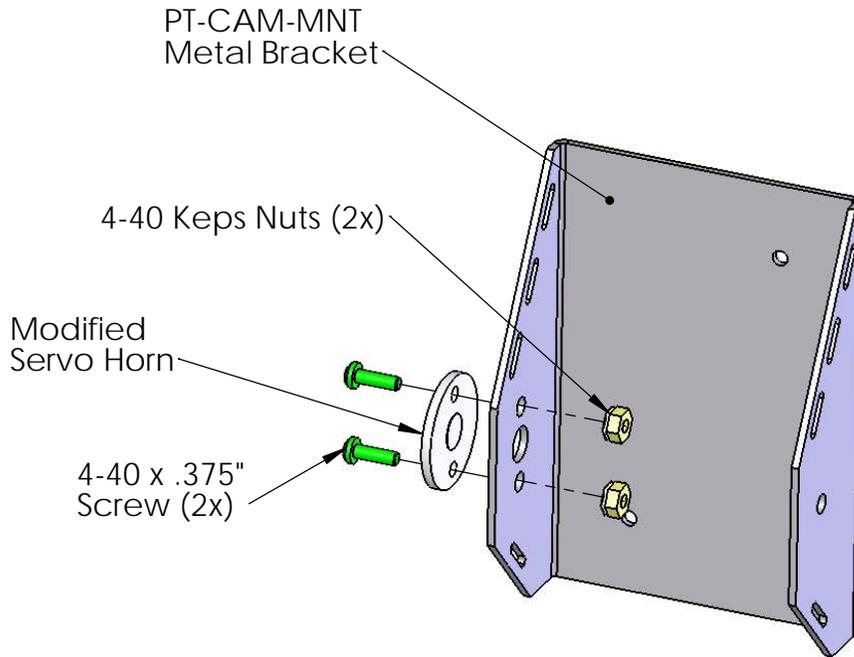
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Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY4



Bolt the Modified Servo Horn onto the PT-CAM-MNT Metal Bracket using (2x) 4-40 Screws and Keps Nuts. As Shown.

Bolt the Servo onto the PT-TILT-BRK using (4x) 4-40 Screws and Keps Nuts. As Shown.

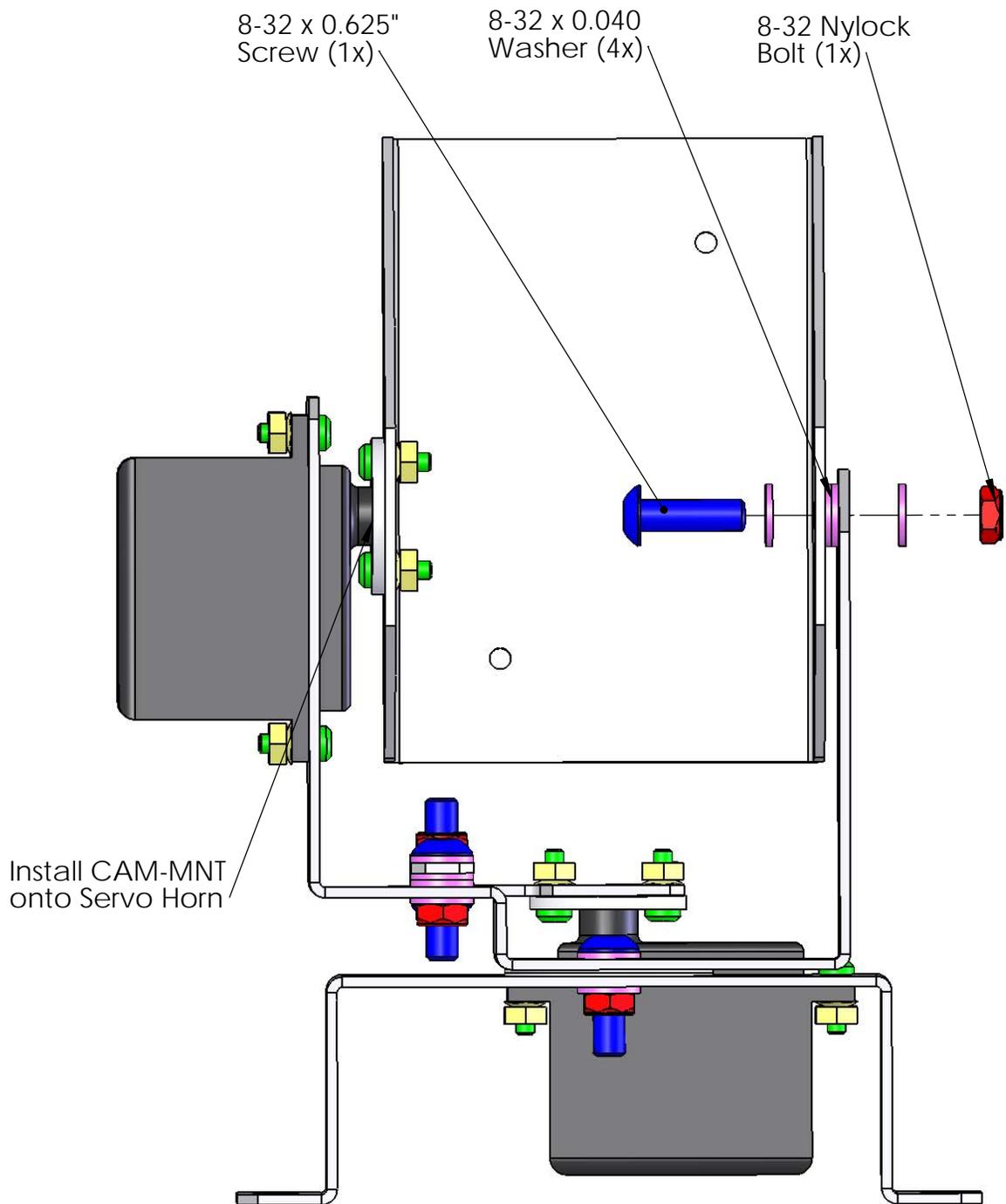
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Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY5



Center the Servo into neutral position then install the CAM-MNT Bracket as shown.

Form a joint between the PT-CAM-MNT and the PT-TILT-BRK.

Bolt through with (1x) 8-32 Bolt, and Nylock Nut. Use (4x) Washers as shown to reduce joint friction.

Tighten screws as much as possible, while still allowing for smooth joint movement.

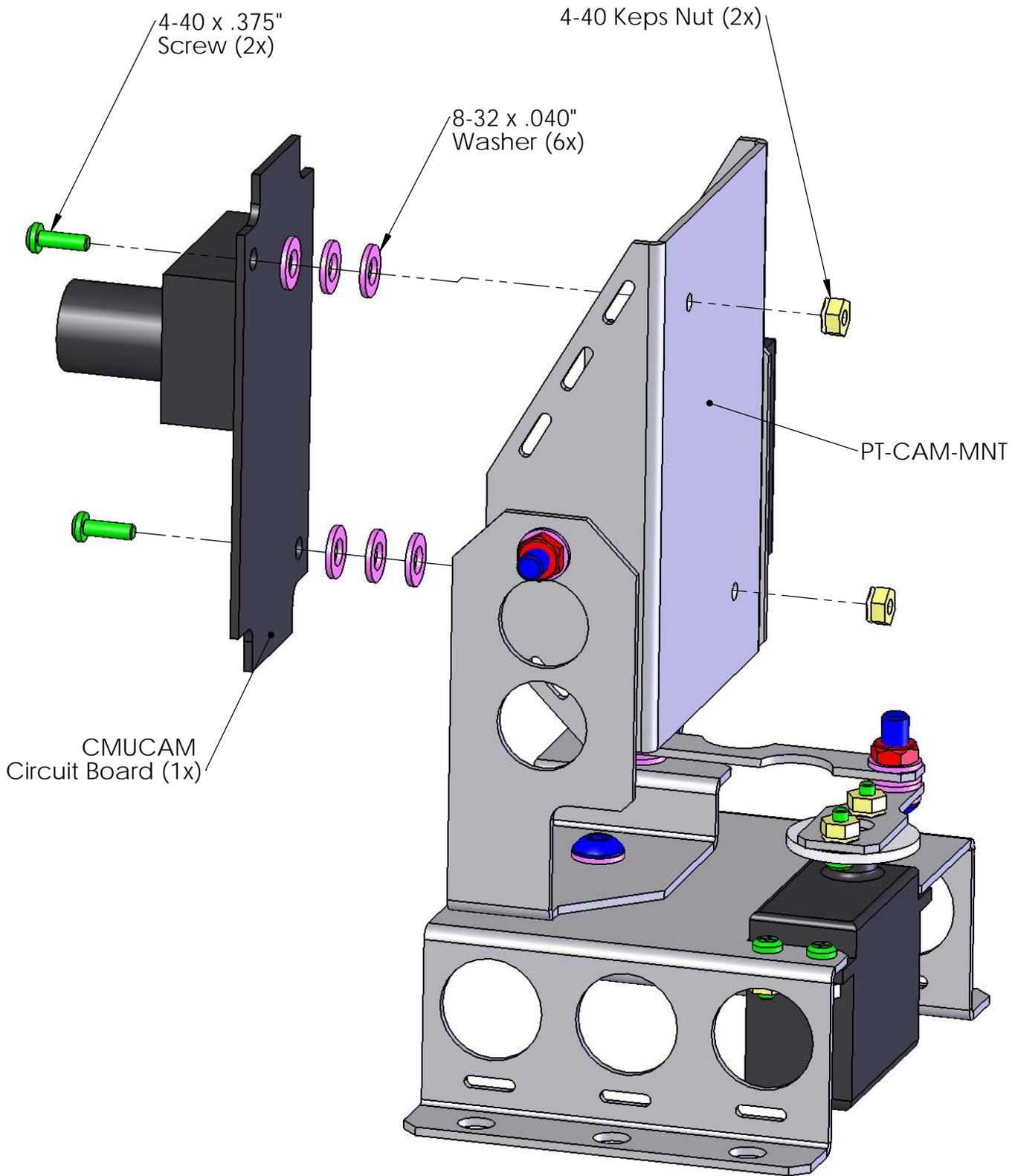
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Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY6



Install the CMUCAM onto the PT-CAM-MNT Metal Bracket by screwing (2x) 4-40 Screws into 4-40 Keps Nuts. Offset the Board off the Metal Bracket using (6x) of the small washers.

If CMUCAM is mounted in RadioShack Project box. Use Velcro to attach Box to PT-CAM-MNT Metal Bracket in position shown.

Printed on 1/10/2006

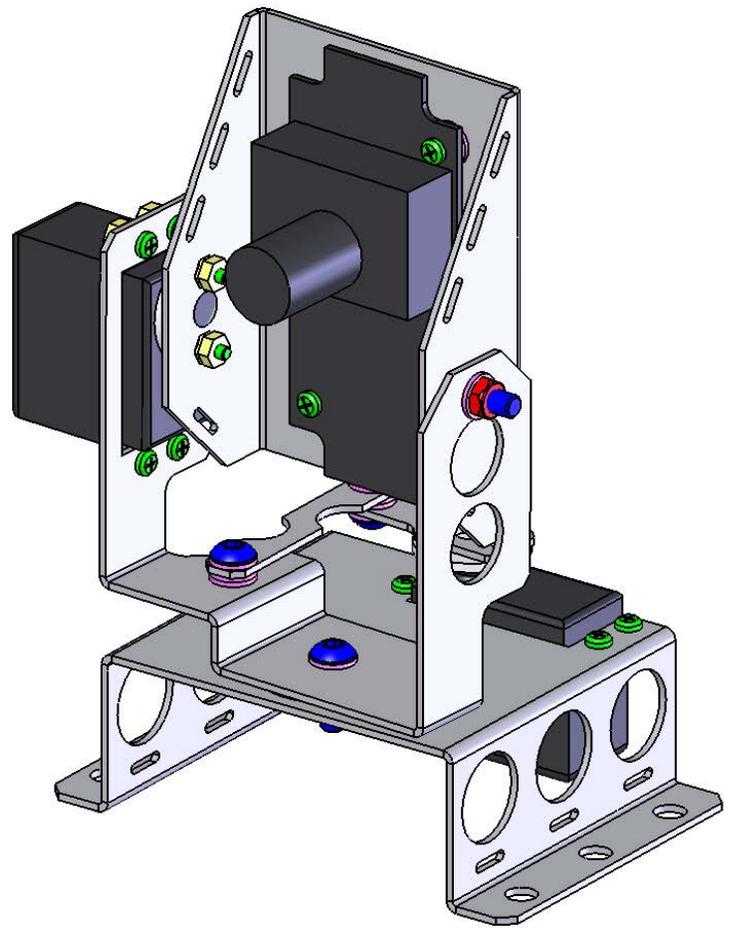
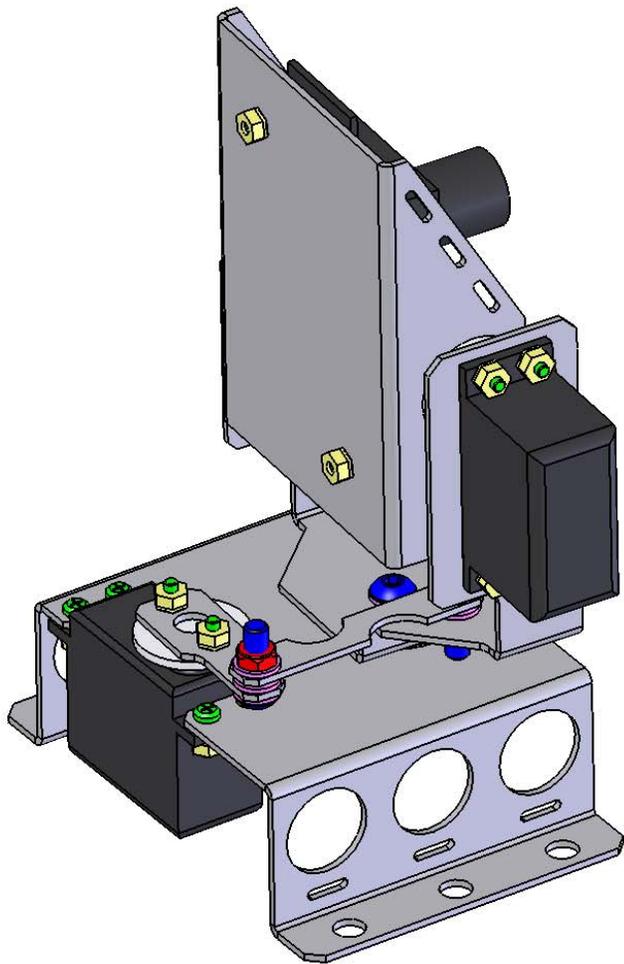
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Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY7



To complete assembly, install Retainer Screws back into Modified Servo Horns.

Tighten all Joint bolts as much as possible, but allow free movement.

Ziptie all cables in provided slots.

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Pan-Tilt Mechanism

Part Number

FRC-PANTILT-01-ASSY8