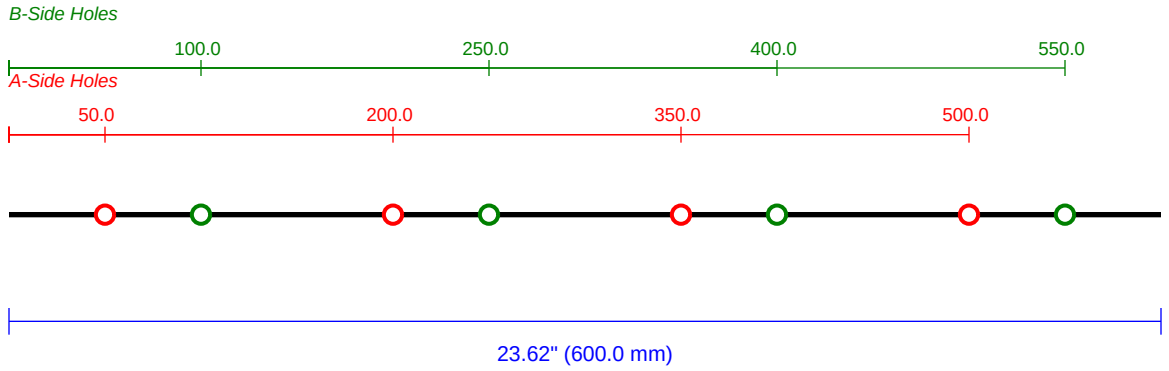
Part A1: Back Stiffener Outer Vertical

Quantity Needed: 2 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

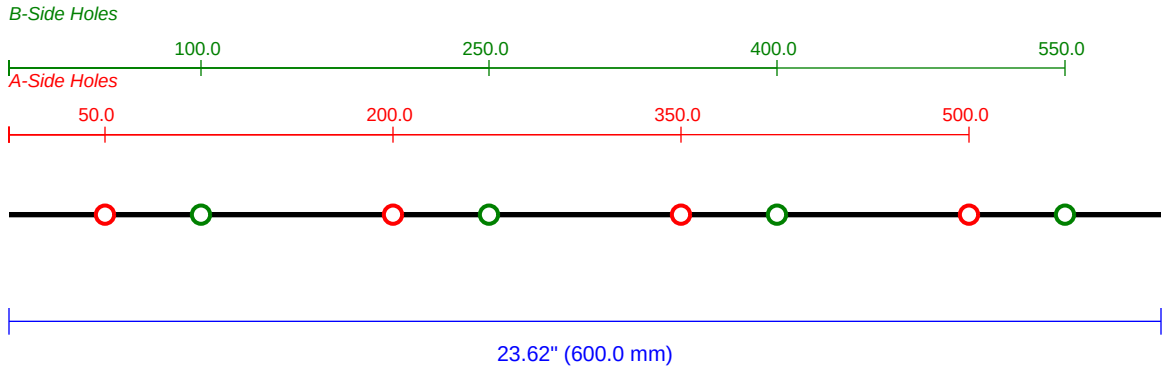
Manufacturing Operations:

- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 23.62" (600.0 mm)
- [ ] 2. Drill 3/8" hole at 1.97" (50.0 mm)
  - Wall mounting (vertical leg)
- [ ] 3. Drill 3/8" hole at 7.87" (200.0 mm)
  - Wall mounting (vertical leg)
- [ ] 4. Drill 3/8" hole at 13.78" (350.0 mm)
  - Wall mounting (vertical leg)
- [ ] 5. Drill 3/8" hole at 19.69" (500.0 mm)
  - Wall mounting (vertical leg)
- [ ] 6. Drill 3/8" hole at 3.94" (100.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 7. Drill 3/8" hole at 9.84" (250.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 8. Drill 3/8" hole at 15.75" (400.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 9. Drill 3/8" hole at 21.65" (550.0 mm)
  - Plate mounting (horizontal leg)

Part A2: Back Stiffener Inner Vertical

Quantity Needed: 4 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

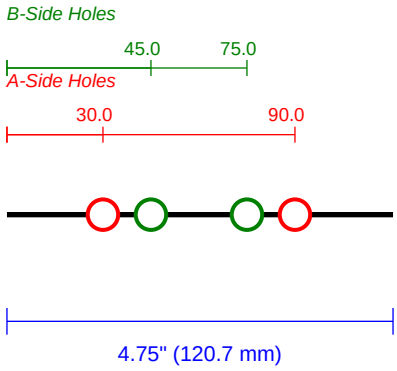
Manufacturing Operations:

- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 23.62" (600.0 mm)
- [ ] 2. Drill 3/8" hole at 1.97" (50.0 mm)
  - Wall mounting (vertical leg)
- [ ] 3. Drill 3/8" hole at 7.87" (200.0 mm)
  - Wall mounting (vertical leg)
- [ ] 4. Drill 3/8" hole at 13.78" (350.0 mm)
  - Wall mounting (vertical leg)
- [ ] 5. Drill 3/8" hole at 19.69" (500.0 mm)
  - Wall mounting (vertical leg)
- [ ] 6. Drill 3/8" hole at 3.94" (100.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 7. Drill 3/8" hole at 9.84" (250.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 8. Drill 3/8" hole at 15.75" (400.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 9. Drill 3/8" hole at 21.65" (550.0 mm)
  - Plate mounting (horizontal leg)

Part A3: Front Stiffener Outer Vertical

Quantity Needed: 6 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

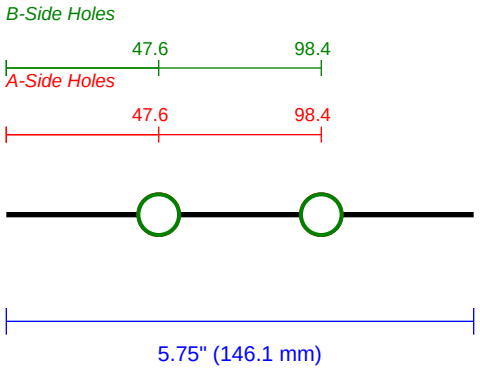
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 4.75" (120.7 mm)
- [ ] 2. Drill 3/8" hole at 1.18" (30.0 mm)
  - Wall mounting (vertical leg)
- [ ] 3. Drill 3/8" hole at 3.54" (90.0 mm)
  - Wall mounting (vertical leg)
- [ ] 4. Drill 3/8" hole at 1.77" (45.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 5. Drill 3/8" hole at 2.95" (75.0 mm)
  - Plate mounting (horizontal leg)

Notes: Front stiffener 5" sections. 3/8" holes, 3" spacing.

Part A4: Frame Tube Mount Angle

Quantity Needed: 16 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

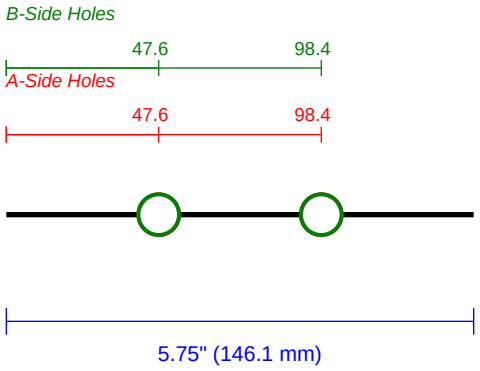
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 5.75" (146.1 mm)
- [ ] 2. Drill 1/2" hole at 1.88" (47.6 mm)
  - Wall mounting bolt 1 (vertical leg)
- [ ] 3. Drill 1/2" hole at 3.88" (98.4 mm)
  - Wall mounting bolt 2 (vertical leg)
- [ ] 4. Drill 1/2" hole at 1.88" (47.6 mm)
  - Tube mounting bolt 1 (horizontal leg)
- [ ] 5. Drill 1/2" hole at 3.88" (98.4 mm)
  - Tube mounting bolt 2 (horizontal leg)

Notes: Mounts 2×6 frame tubes to panels. 1/2" holes: 4" spacing on wall leg, 2" spacing on tube leg.

Part A5: Arm Crossbeam Mount Angle

Quantity Needed: 4 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

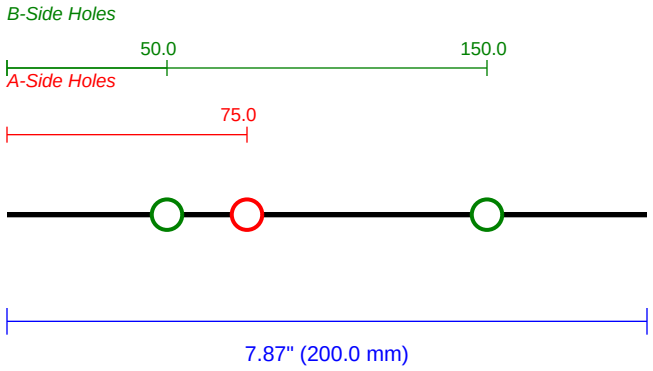
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 5.75" (146.1 mm)
- [ ] 2. Drill 1/2" hole at 1.88" (47.6 mm)
  - Plate mounting bolt 1 (vertical leg)
- [ ] 3. Drill 1/2" hole at 3.88" (98.4 mm)
  - Plate mounting bolt 2 (vertical leg)
- [ ] 4. Drill 1/2" hole at 1.88" (47.6 mm)
  - Beam mounting bolt 1 (horizontal leg)
- [ ] 5. Drill 1/2" hole at 3.88" (98.4 mm)
  - Beam mounting bolt 2 (horizontal leg)

Notes: Connects loader arm crossbeam to arm plates. 2 per arm × 2 arms = 4 total.

Part A6-1: Bottom Horizontal Segment 1 (Rear)

Quantity Needed: 8 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

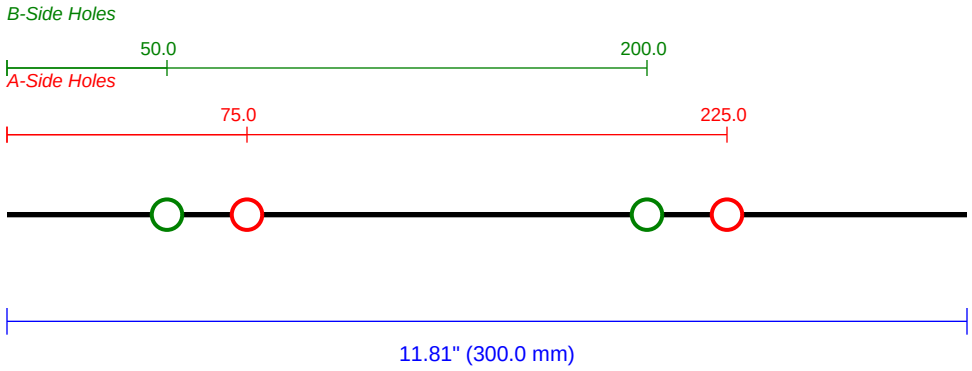
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 7.87" (200.0 mm)
- [ ] 2. Drill 3/8" hole at 1.97" (50.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 3. Drill 3/8" hole at 5.91" (150.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 4. Drill 3/8" hole at 2.95" (75.0 mm)
  - Wall mounting (vertical leg)

Notes: Bottom plate rear segment. Split pattern with 8" gaps at wheels.

Part A6-2: Bottom Horizontal Segment 2 (Middle)

Quantity Needed: 8 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

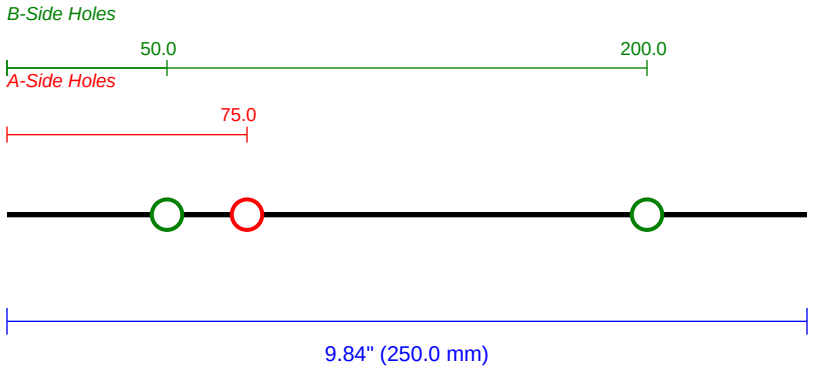
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 11.81" (300.0 mm)
- [ ] 2. Drill 3/8" hole at 1.97" (50.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 3. Drill 3/8" hole at 7.87" (200.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 4. Drill 3/8" hole at 2.95" (75.0 mm)
  - Wall mounting (vertical leg)
- [ ] 5. Drill 3/8" hole at 8.86" (225.0 mm)
  - Wall mounting (vertical leg)

Notes: Bottom plate middle segment (between wheels).

Part A6-3: Bottom Horizontal Segment 3 (Front)

Quantity Needed: 8 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

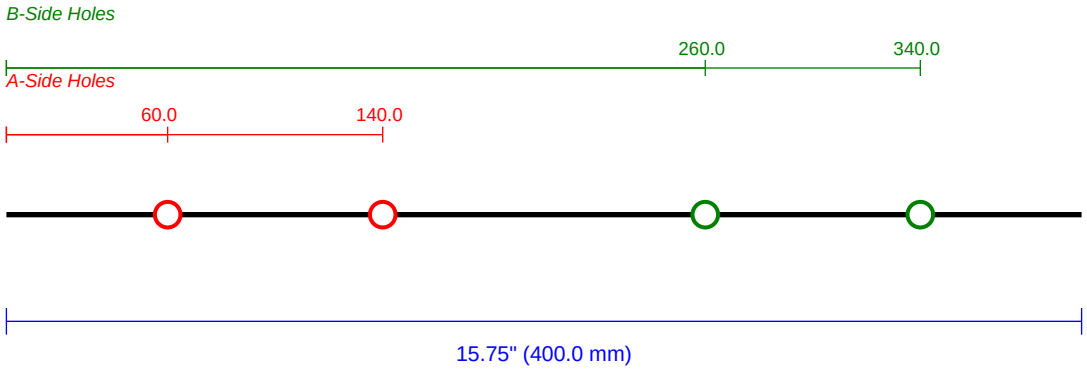
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 9.84" (250.0 mm)
- [ ] 2. Drill 3/8" hole at 1.97" (50.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 3. Drill 3/8" hole at 7.87" (200.0 mm)
  - Plate mounting (horizontal leg)
- [ ] 4. Drill 3/8" hole at 2.95" (75.0 mm)
  - Wall mounting (vertical leg)

Notes: Bottom plate front segment.

Part A7: Platform Side Angle

Quantity Needed: 2 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

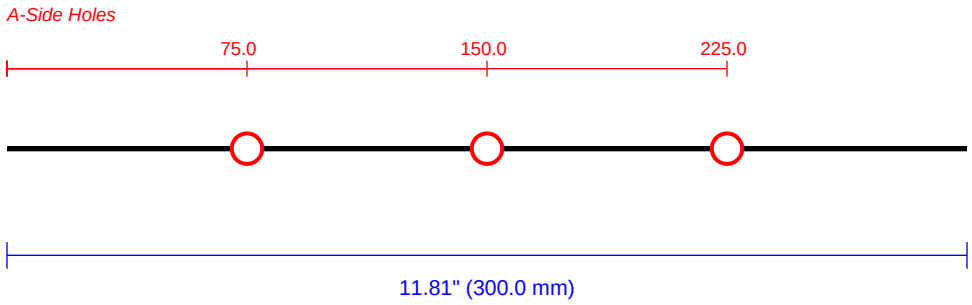
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 15.75" (400.0 mm)
- [ ] 2. Drill 3/8" hole at 2.36" (60.0 mm)
  - Pivot bracket bolt 1 (vertical leg)
- [ ] 3. Drill 3/8" hole at 5.51" (140.0 mm)
  - Pivot bracket bolt 2 (vertical leg)
- [ ] 4. Drill 3/8" hole at 10.24" (260.0 mm)
  - Deck bolt 1 (horizontal leg)
- [ ] 5. Drill 3/8" hole at 13.39" (340.0 mm)
  - Deck bolt 2 (horizontal leg)

Notes: Standing platform side arms. Make one left and one right (mirror image).

Part A8: Platform Transverse Angle

Quantity Needed: 2 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

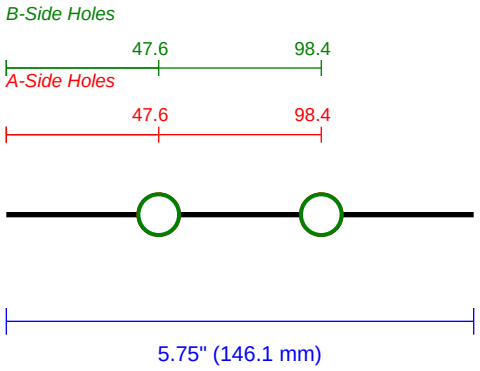
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 11.81" (300.0 mm)
- [ ] 2. Drill 3/8" hole at 2.95" (75.0 mm)
  - Deck mounting hole
- [ ] 3. Drill 3/8" hole at 5.91" (150.0 mm)
  - Deck mounting hole
- [ ] 4. Drill 3/8" hole at 8.86" (225.0 mm)
  - Deck mounting hole

Notes: Platform transverse bracing (left-right across deck).

Part A9: Front Center Angle

Quantity Needed: 2 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

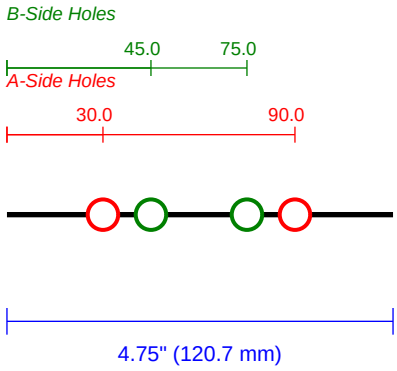
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 5.75" (146.1 mm)
- [ ] 2. Drill 1/2" hole at 1.88" (47.6 mm)
  - Mounting bolt 1 (vertical leg)
- [ ] 3. Drill 1/2" hole at 3.88" (98.4 mm)
  - Mounting bolt 2 (vertical leg)
- [ ] 4. Drill 1/2" hole at 1.88" (47.6 mm)
  - Mounting bolt 1 (horizontal leg)
- [ ] 5. Drill 1/2" hole at 3.88" (98.4 mm)
  - Mounting bolt 2 (horizontal leg)

Notes: Front stiffener motor plate inner faces. Same as A4.

Part A10: Front Outer Angle (Motor Plate)

Quantity Needed: 8 Material: 2" × 2" × 1/4" Angle Iron

Material: 2" × 2" × 1/4" Angle Iron



(3D renders require OpenSCAD)

Manufacturing Operations:

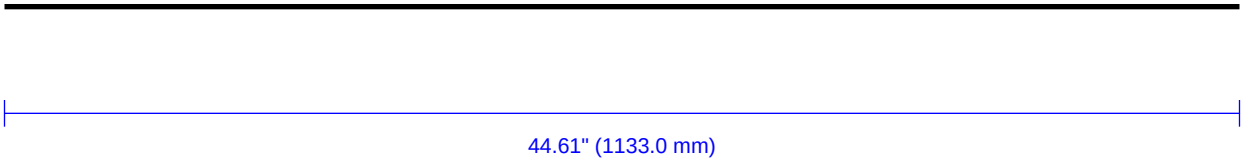
- [ ] 1. Cut 2" × 2" × 1/4" Angle Iron to 4.75" (120.7 mm)
- [ ] 2. Drill 3/8" hole at 1.18" (30.0 mm)
  - Mounting hole 1 (vertical leg)
- [ ] 3. Drill 3/8" hole at 3.54" (90.0 mm)
  - Mounting hole 2 (vertical leg)
- [ ] 4. Drill 3/8" hole at 1.77" (45.0 mm)
  - Mounting hole 1 (horizontal leg)
- [ ] 5. Drill 3/8" hole at 2.95" (75.0 mm)
  - Mounting hole 2 (horizontal leg)

Notes: Front stiffener outer sections and motor plate sides.

Part T1: Front Frame Tube

Quantity Needed: 1 Material: 2" × 6" × 1/4" Rectangular Tubing

Material: 2" × 6" × 1/4" Rectangular Tubing



(3D renders require OpenSCAD)

Manufacturing Operations:

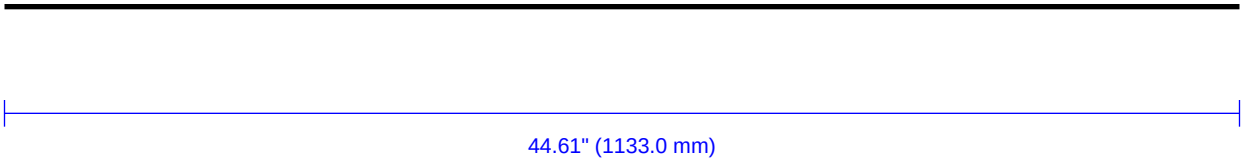
- [ ] 1. Cut 2" × 6" × 1/4" Rectangular Tubing to 44.61" (1133.0 mm)

Notes: Front cross frame tube. Length = TRACK_WIDTH + SANDWICH_SPACING + 2×PANEL_THICKNESS + extensions.

Part T2: Rear Frame Tube

Quantity Needed: 1 Material: 2" × 6" × 1/4" Rectangular Tubing

Material: 2" × 6" × 1/4" Rectangular Tubing



(3D renders require OpenSCAD)

Manufacturing Operations:

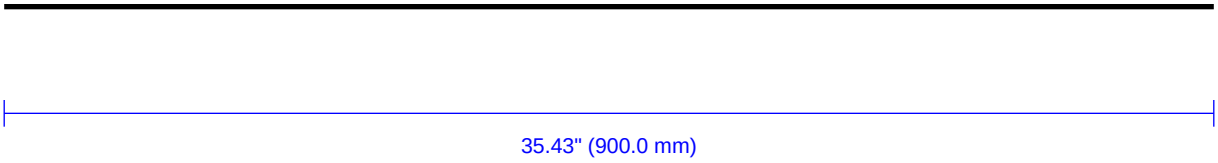
- [ ] 1. Cut 2" × 6" × 1/4" Rectangular Tubing to 44.61" (1133.0 mm)

Notes: Rear cross frame tube. Same length as T1.

Part T3: Arm Crossbeam

Quantity Needed: 1 Material: 2" × 6" × 1/4" Rectangular Tubing

Material: 2" × 6" × 1/4" Rectangular Tubing



(3D renders require OpenSCAD)

Manufacturing Operations:

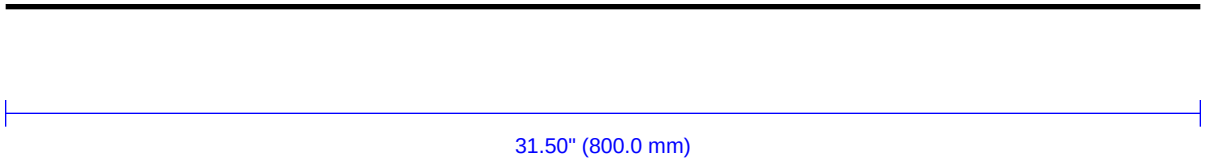
- [ ] 1. Cut 2" × 6" × 1/4" Rectangular Tubing to 35.43" (900.0 mm)

Notes: Loader arm crossbeam connecting left and right arms. Length = ARM_SPACING.

Part T4: Main Arm Tube

Quantity Needed: 2 Material: 2" × 6" × 1/4" Rectangular Tubing

Material: 2" × 6" × 1/4" Rectangular Tubing



(3D renders require OpenSCAD)

Manufacturing Operations:

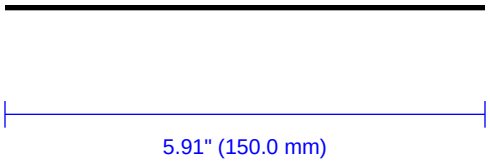
- [ ] 1. Cut 2" × 6" × 1/4" Rectangular Tubing to 31.50" (800.0 mm)

Notes: Loader arm main sections (pivot to elbow). One per arm.

Part T5: Arm Leg Spacer Tube

Quantity Needed: 2 Material: 2" × 6" × 1/4" Rectangular Tubing

Material: 2" × 6" × 1/4" Rectangular Tubing



(3D renders require OpenSCAD)

Manufacturing Operations:

- [ ] 1. Cut 2" × 6" × 1/4" Rectangular Tubing to 5.91" (150.0 mm)

Notes: Spacer tubes at loader arm elbows. Plasma cut to tapered profile.