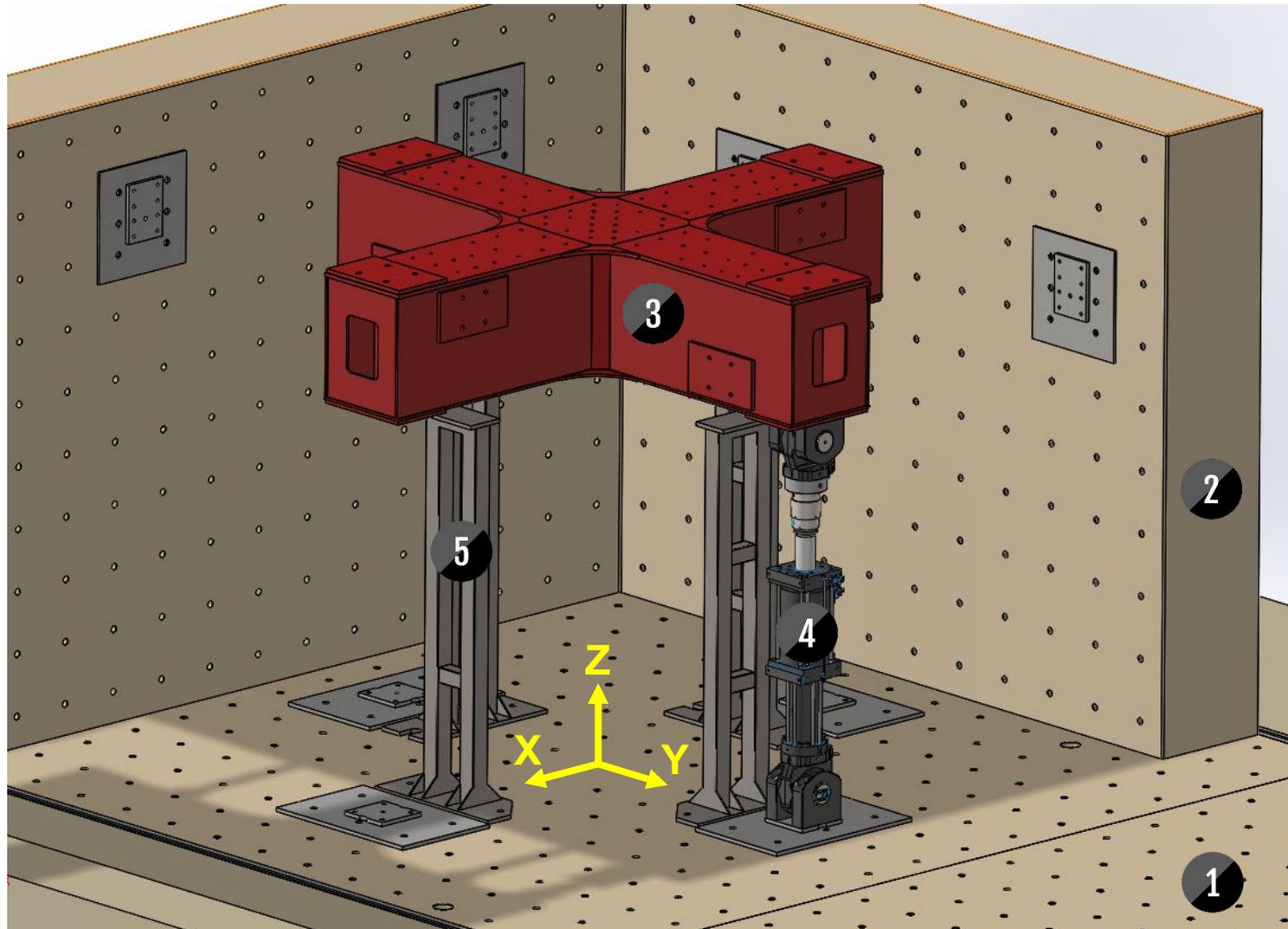


MAST System Designer's Guide for Clients

MAST – Introduction

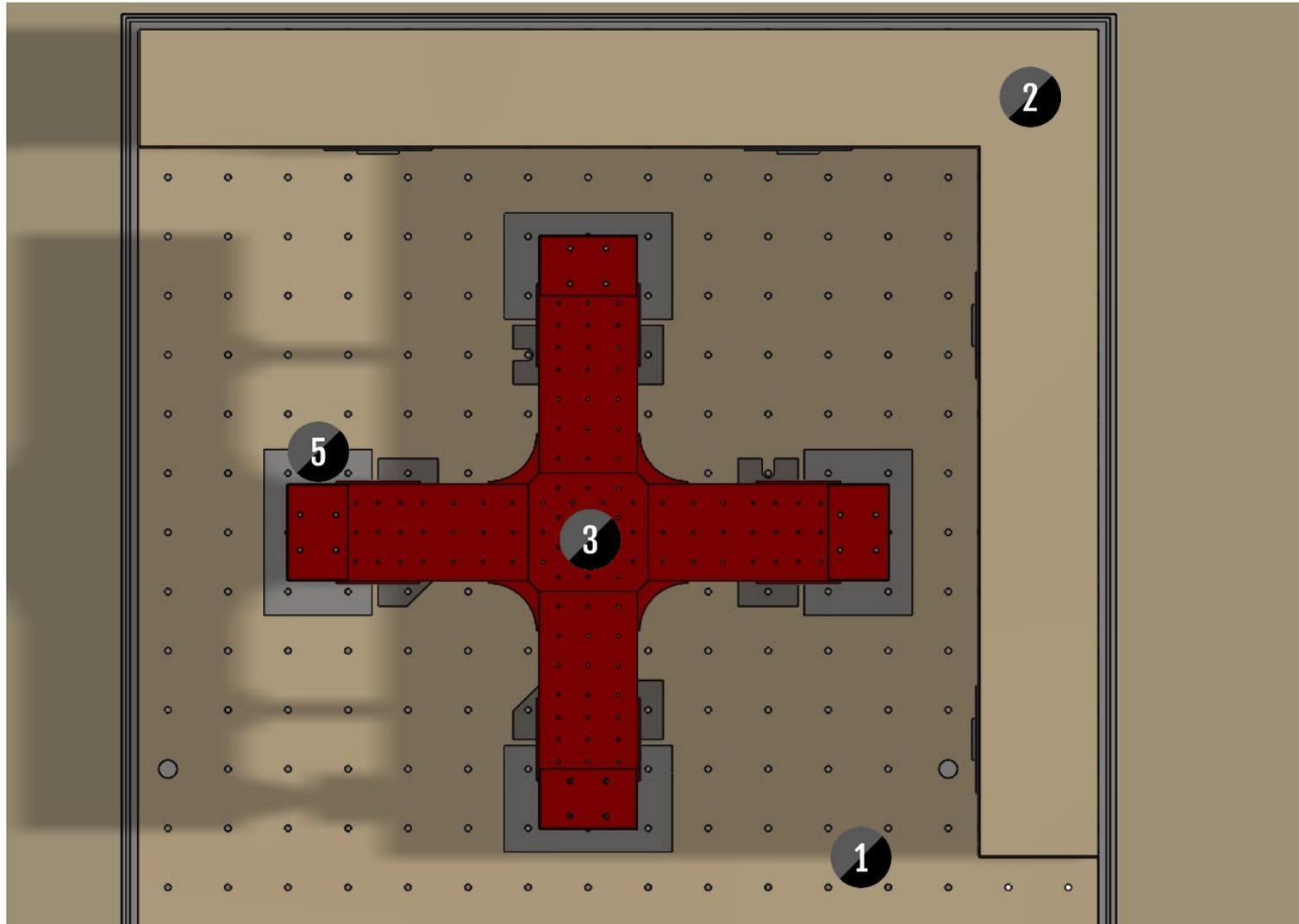
- The MAST uses an FT100 controller with TestSuite MPE and DOF control software
- The MAST has 4× vertical 1 MN and 4× horizontal 500 kN Actuators
- 6 Degrees of Freedom:
 - X,Y,Z: that can be Force or Displacement
 - R_x, R_y, R_z : that can be an Angle or Moment
- The Mast stroke capacity:
 - Translational (X,Y,Z): ± 250 mm
 - Rotational (RX,RY,RZ): ± 7 deg
- The Mast moment capacity:
 - R_x, R_y (Roll,Pitch): 4.5 MN.m
 - R_z (Yaw): 3.55 MN.m

MAST – 3D View



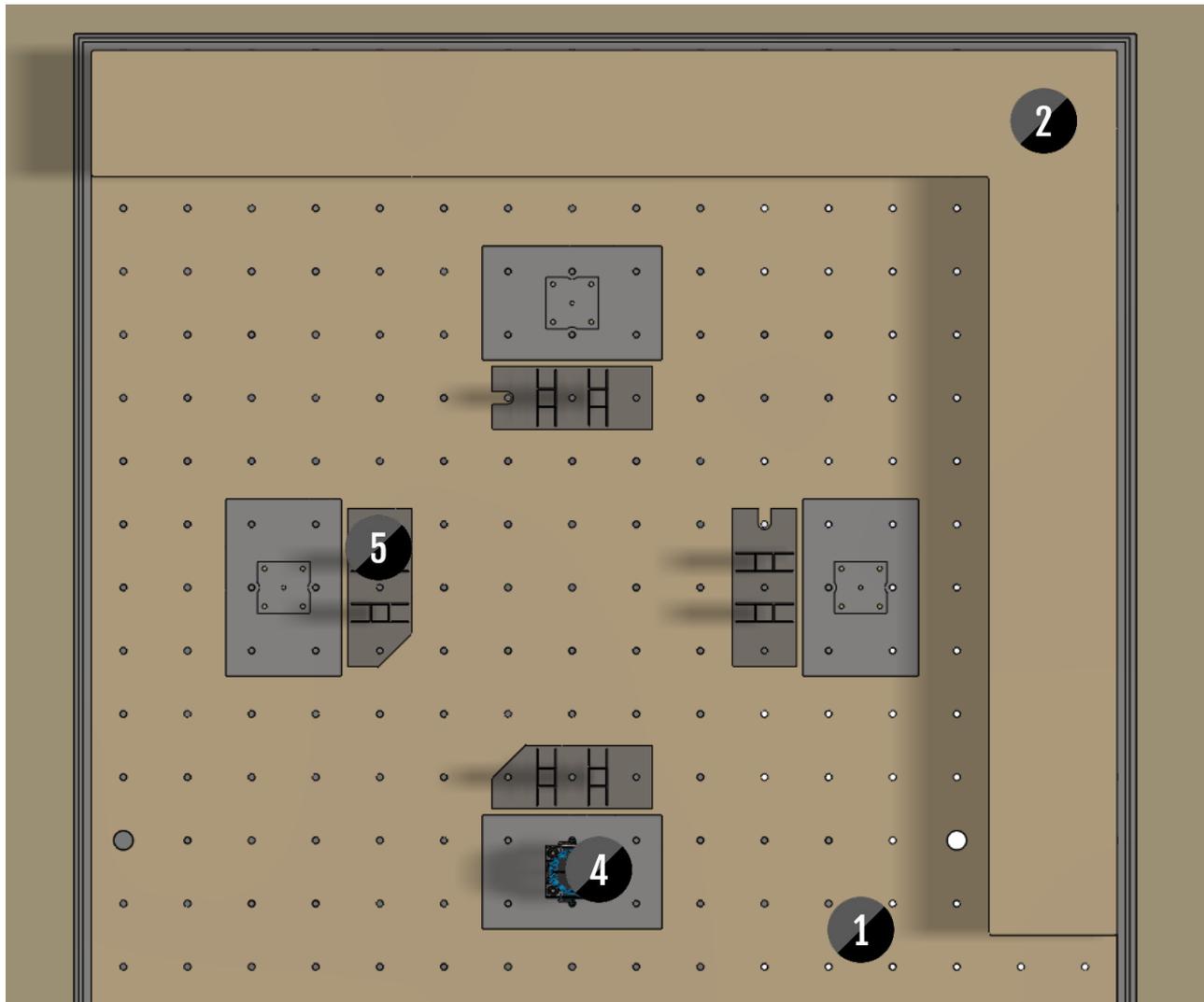
1	Strong Floor	4	Vertical Actuators
2	L-shape Reaction Wall	5	Removable Support Stands
3	MAST Crosshead		

MAST – Plan View



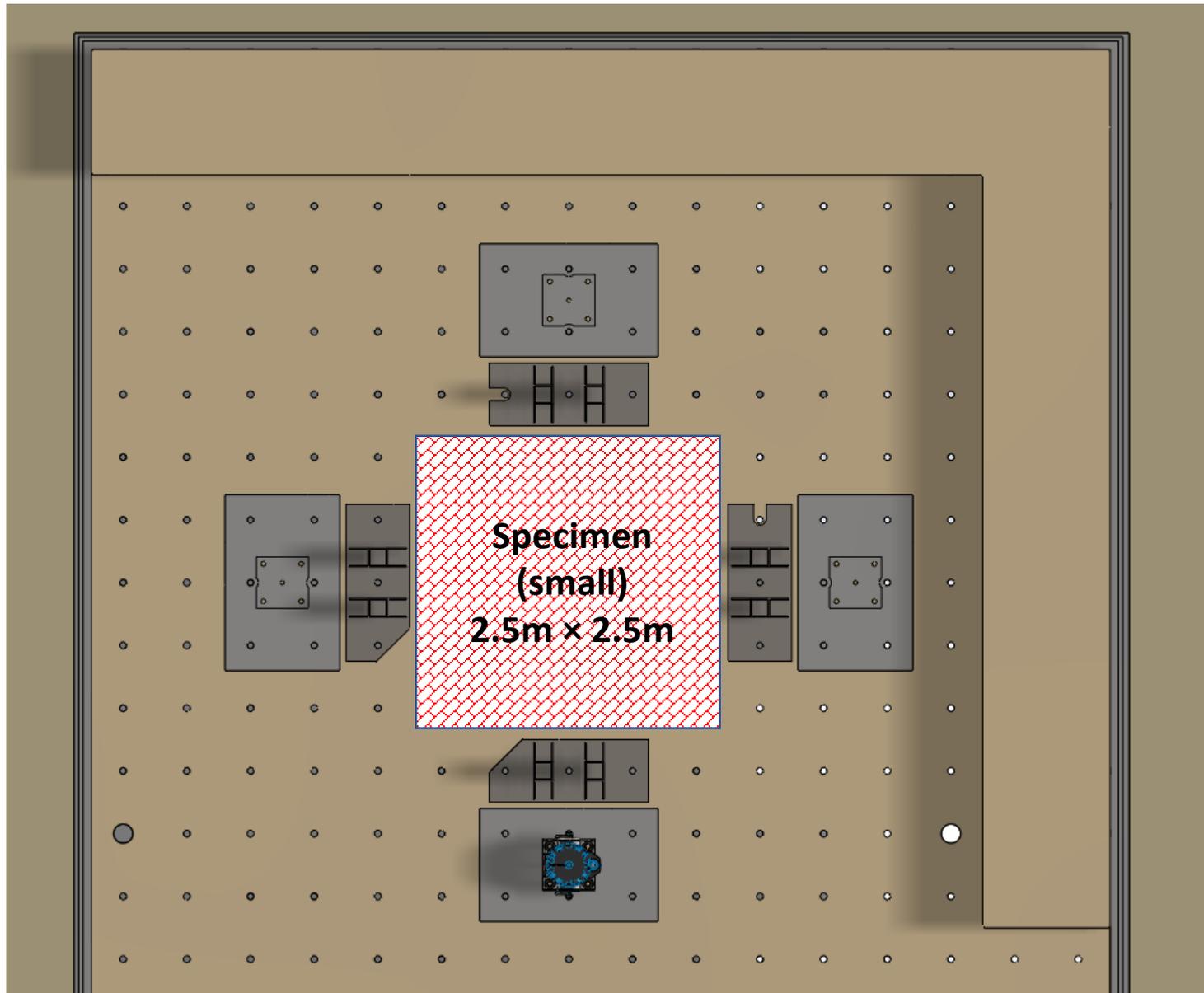
1	Strong Floor	4	Vertical Actuators
2	L-shape Reaction Wall	5	Removable Support Stands
3	MAST Crosshead		

MAST – Cutaway View: Base

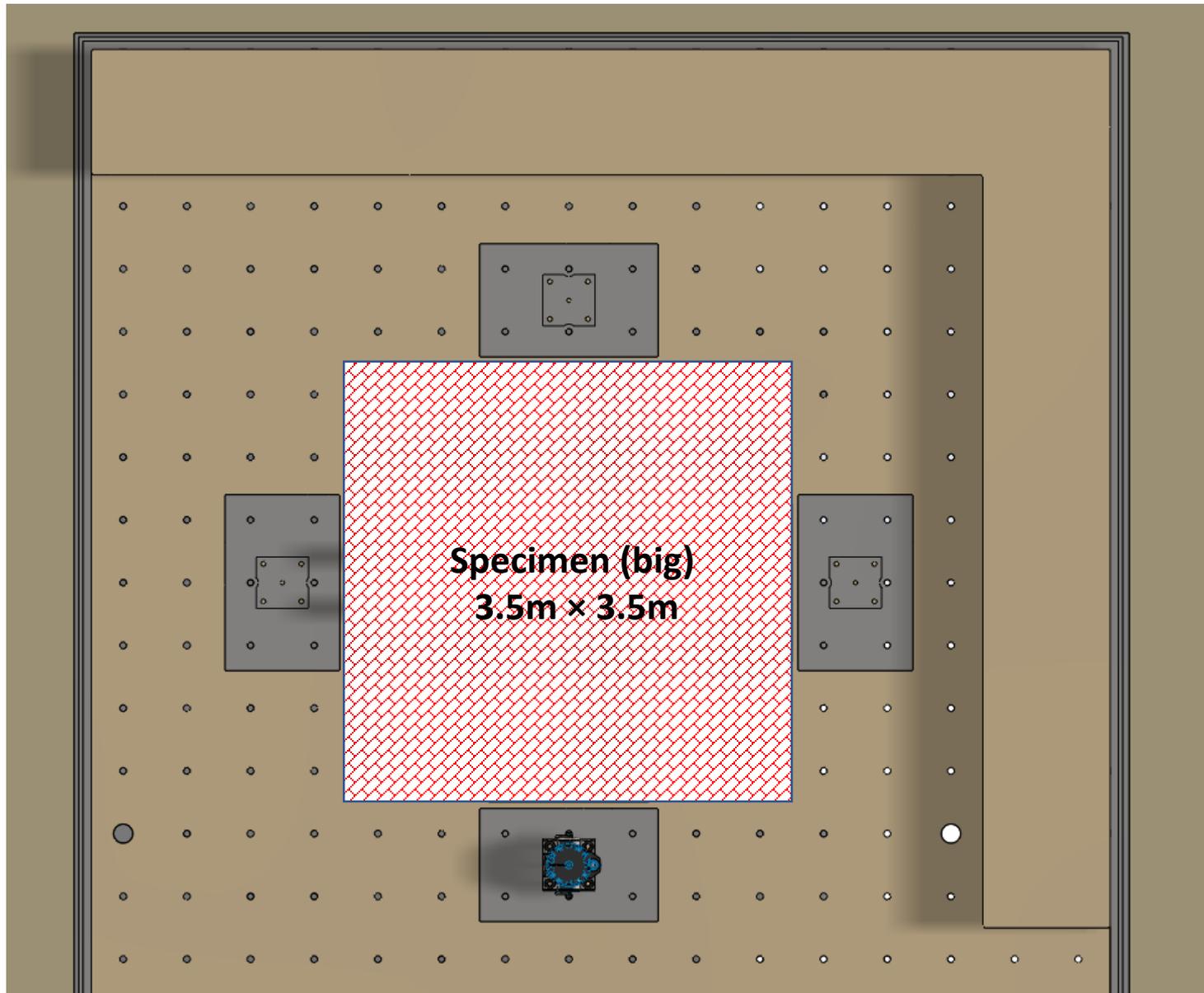


1	Strong Floor	4	Vertical Actuators
2	L-shape Reaction Wall	5	Removable Support Stands
3	MAST Crosshead		

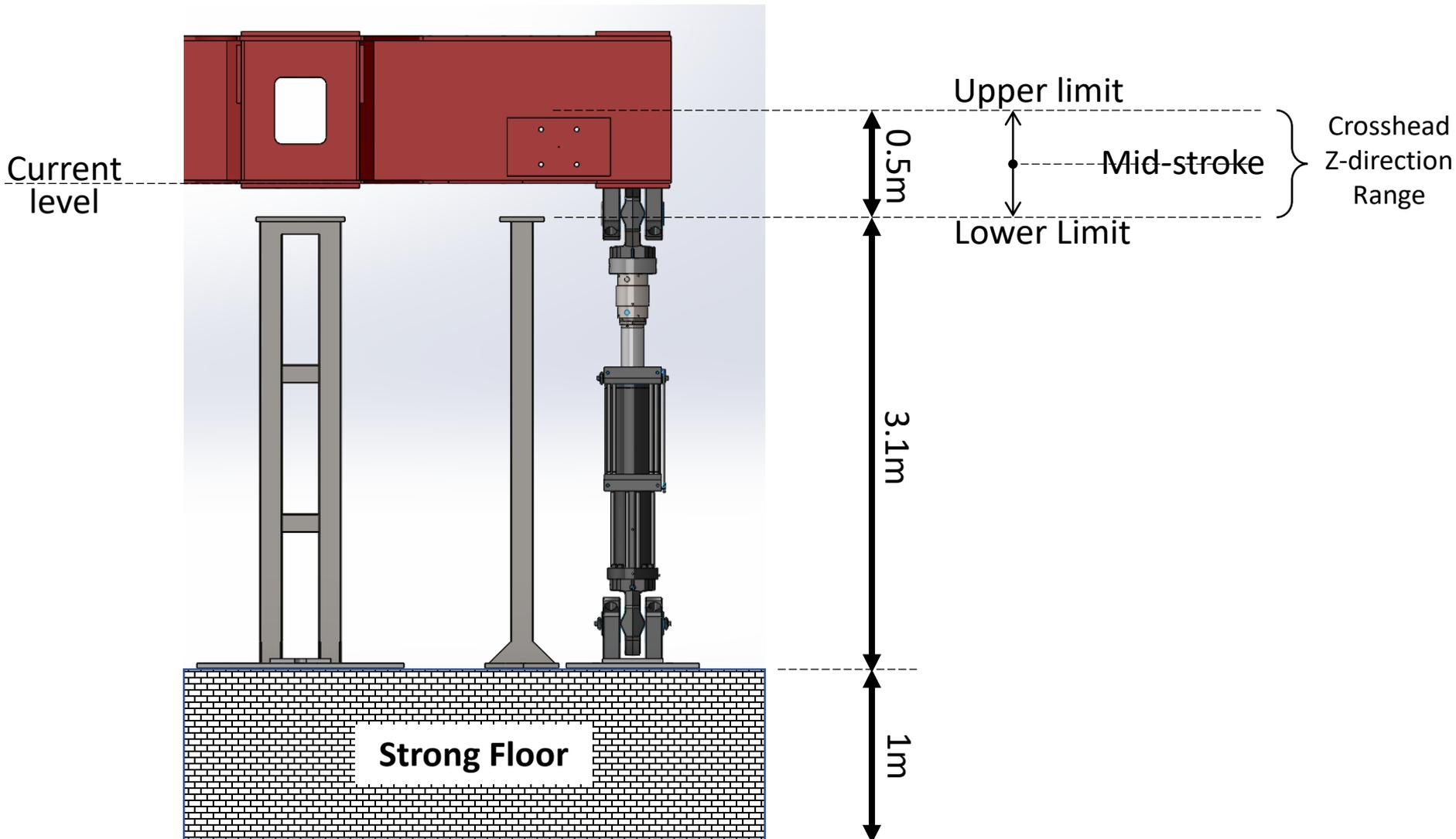
MAST – Specimen Dimension Limit (with support stands)



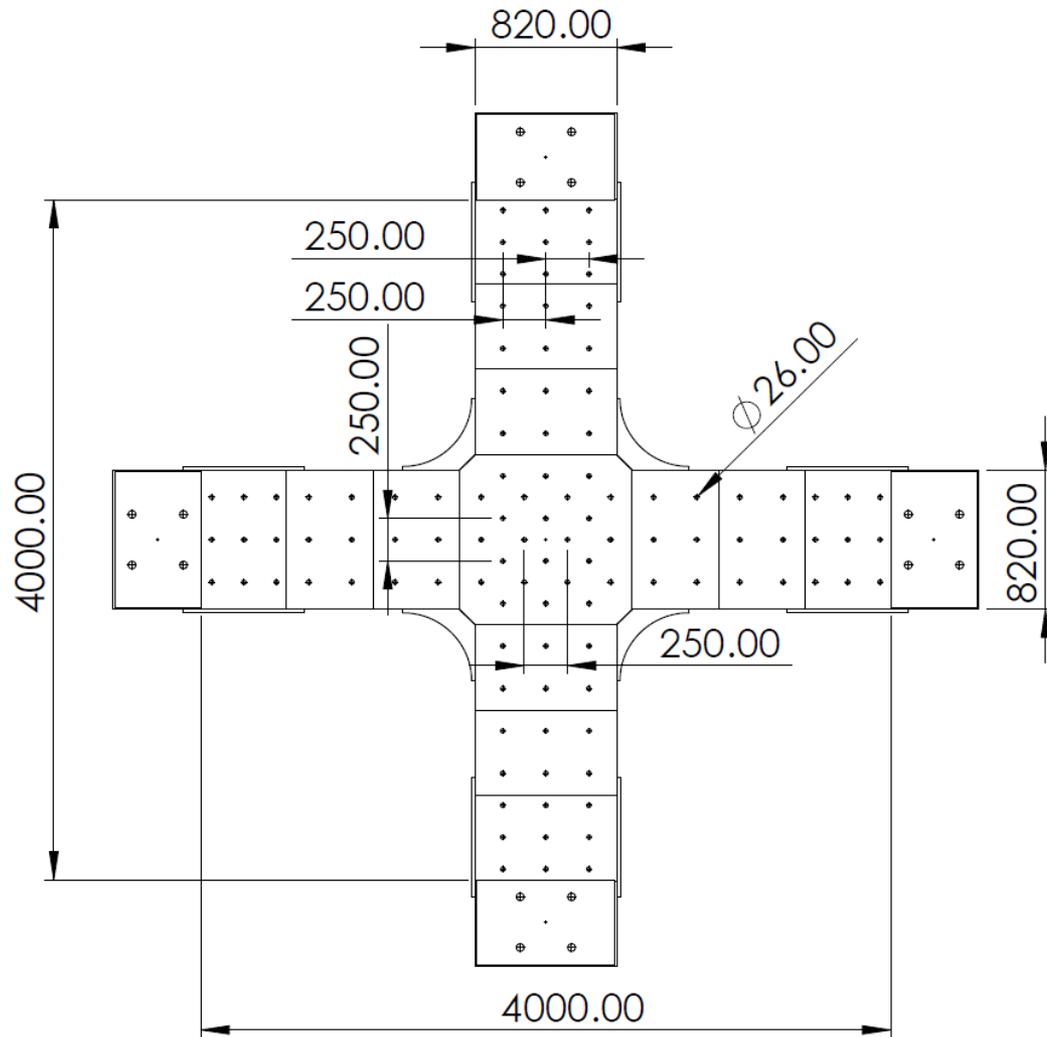
MAST – Specimen Dimension Limit (w/o support stands)



MAST – Elevation View: Vertical Travel Limit

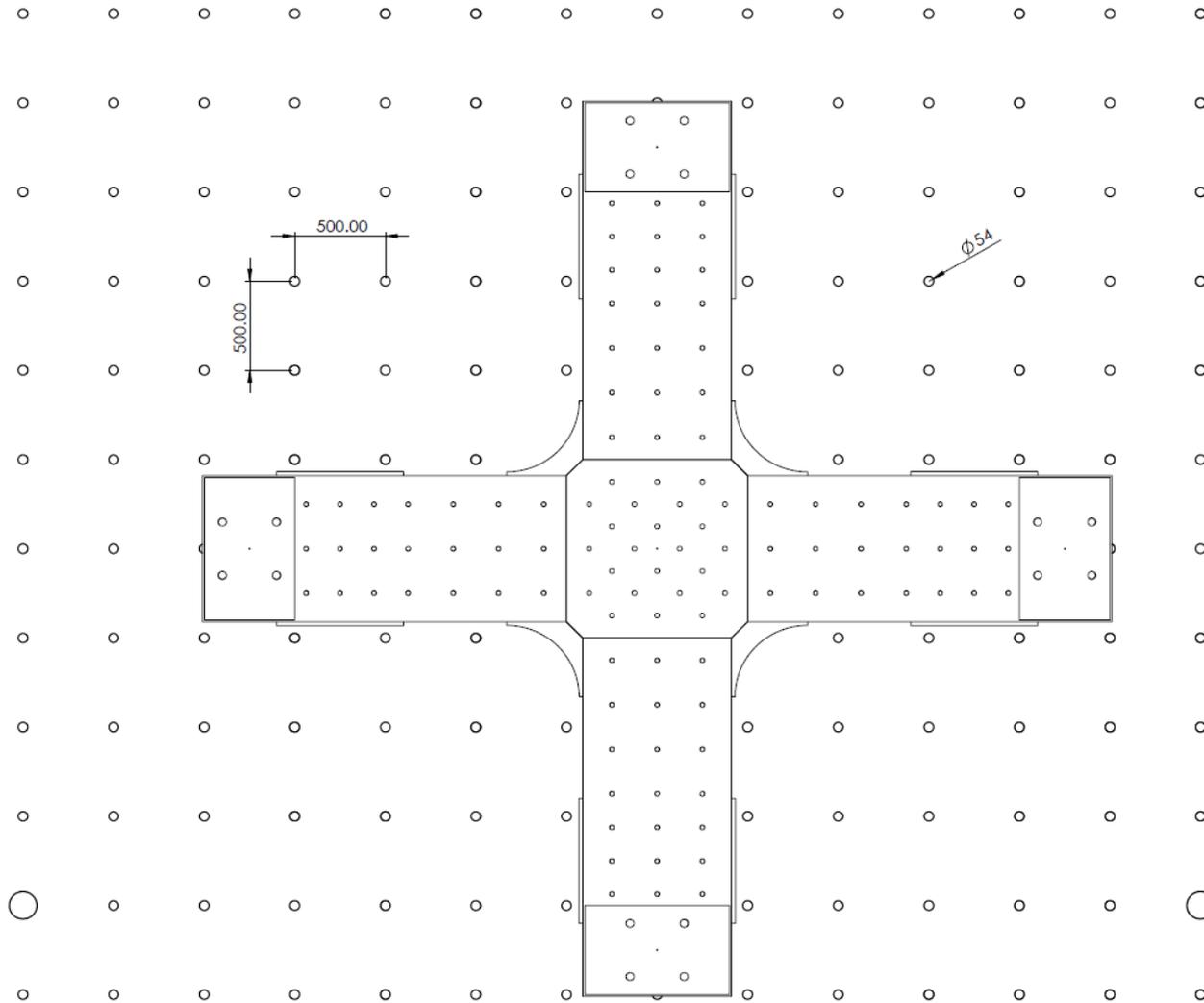


MAST – Plan View: Crosshead Drawing

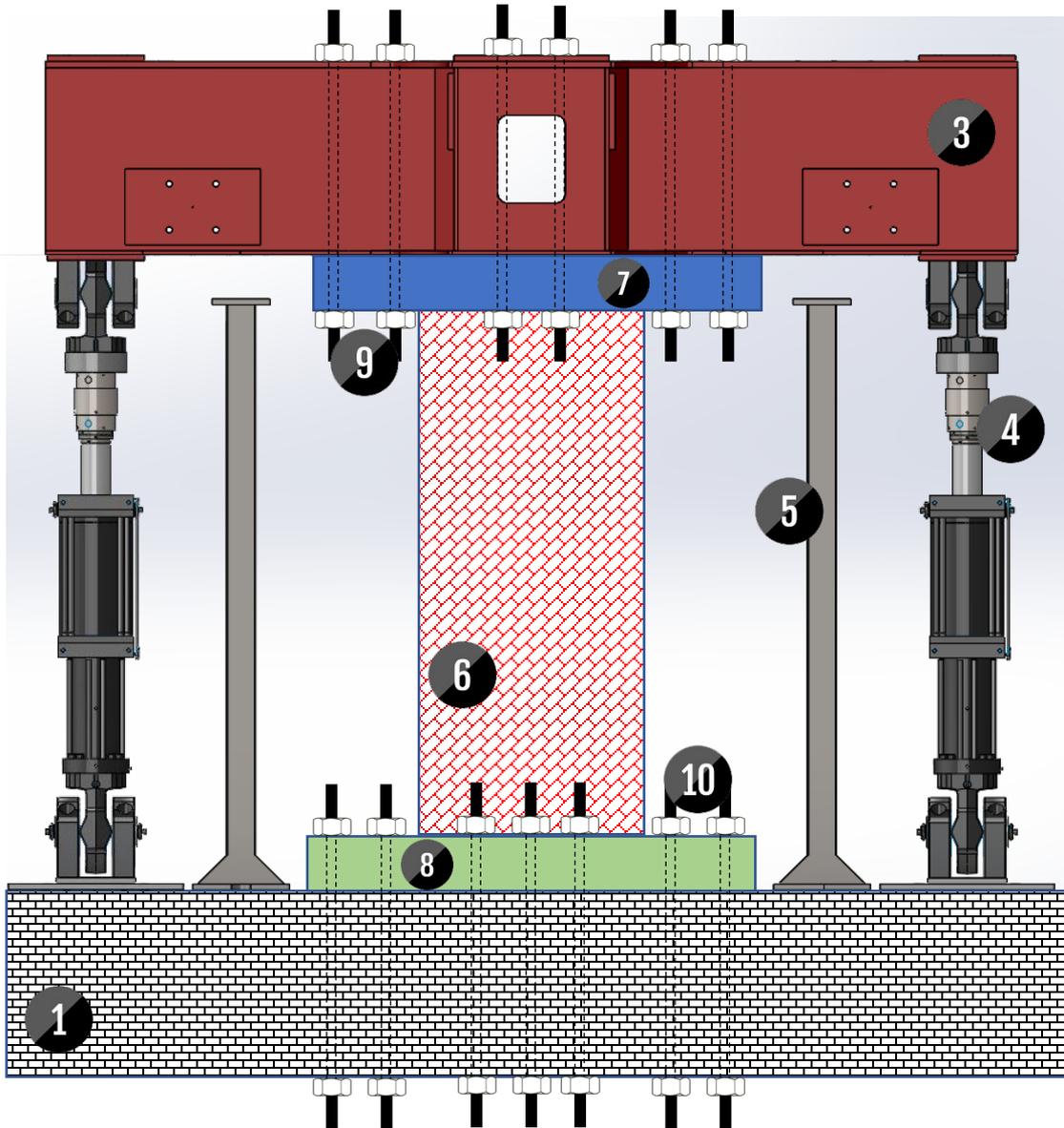


* Depth: 1 m

MAST – Plan View: Crosshead with Strong Floor



MAST – Specimen Mounting Configuration



1	Strong Floor
2	L-shape Reaction Wall
3	MAST Crosshead
4	Vertical Actuators
5	Removable Support Stands
6	Test Specimen
7	Specimen-to-Crosshead interface fixture
8	Specimen-to-floor interface fixture
9	Fixture-to-Crosshead Fasteners (M24 Post-tensioned All-threads)
10	Fixture-to-Floor Fasteners (M24-M50 Post-tensioned All-threads)

MAST – Travel Speed Limit

- ❑ MAST Can move at the rate of up to **40 mm/s** in X and Y direction.