

YANTRA.AI

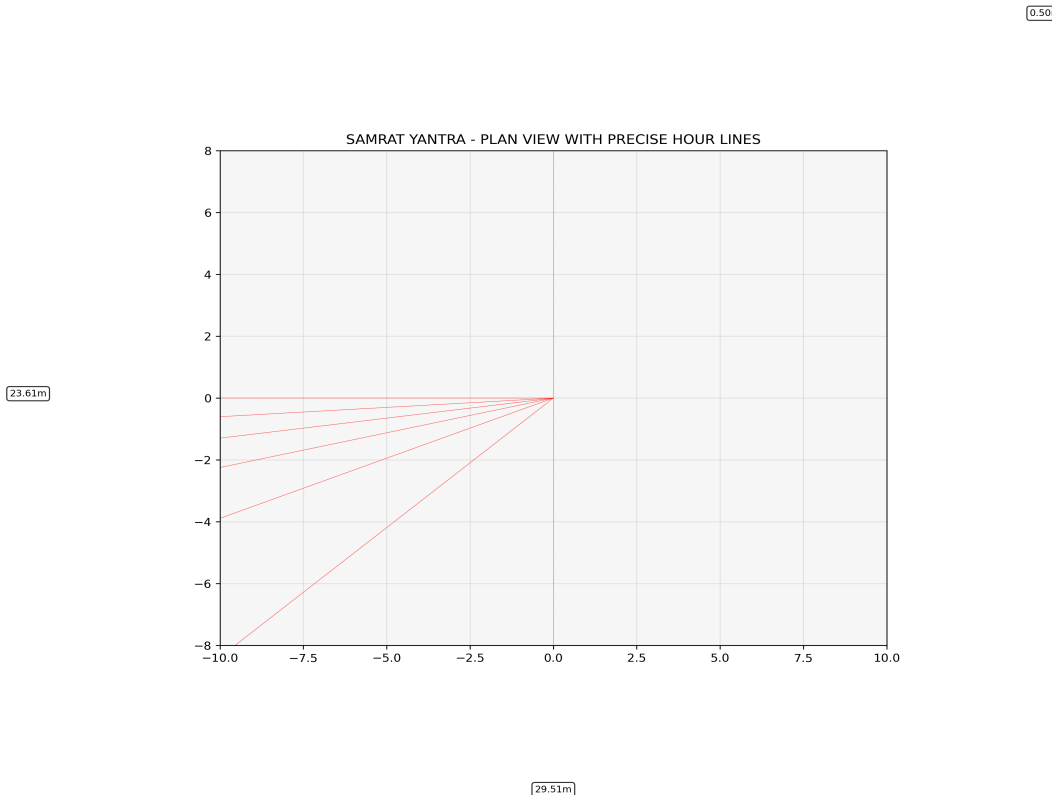
Ancient Indian Astronomical Instrument

Construction Blueprint for Samrat Yantra (Great Sundial)

Parameter	Value
Latitude	12.9716°
Longitude	77.5946°
Elevation	920.0m
Generated	YANTRA.AI System

SAMRAT YANTRA - PLAN VIEW WITH PRECISE HOUR LINES

Scale: 1:100

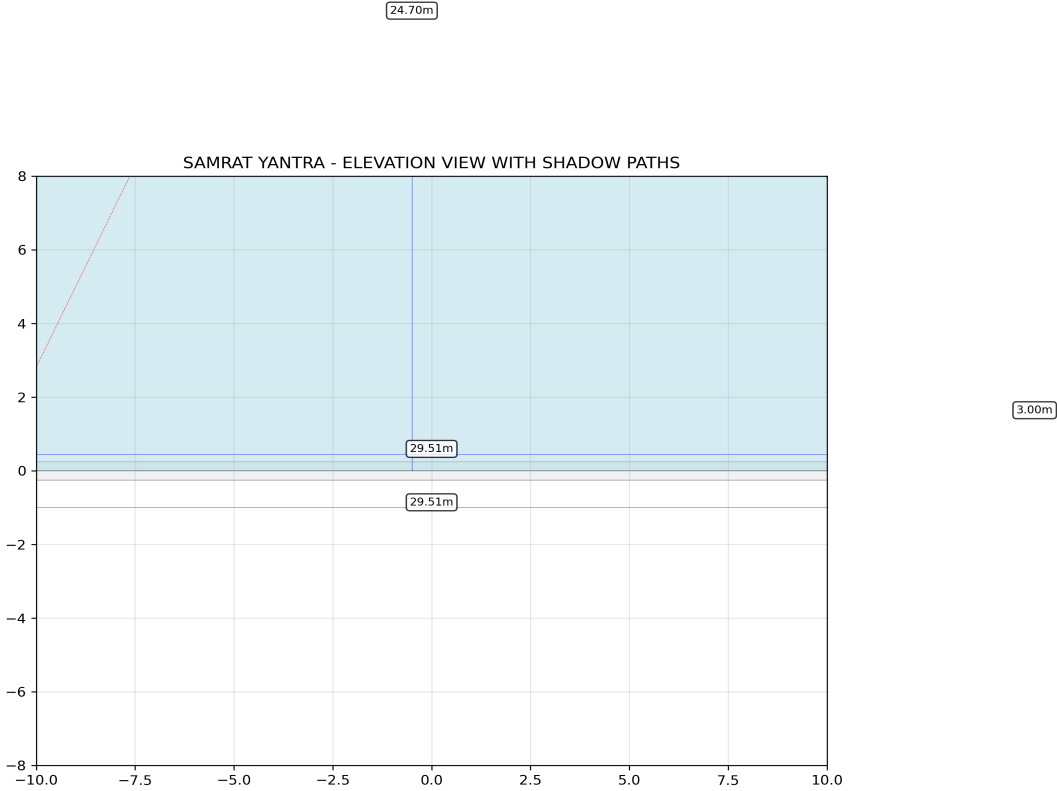


Construction Notes:

- All dimensions in meters
- Gnomon angle: 12.97°
- Hour lines calculated using ray-intersection method
- Optimized for latitude 12.9716°N
- Orient gnomon precisely north-south ($\pm 0.1^\circ$)
- Foundation depth: 0.5m minimum

SAMRAT YANTRA - ELEVATION VIEW WITH SHADOW PATHS

Scale: 1:100

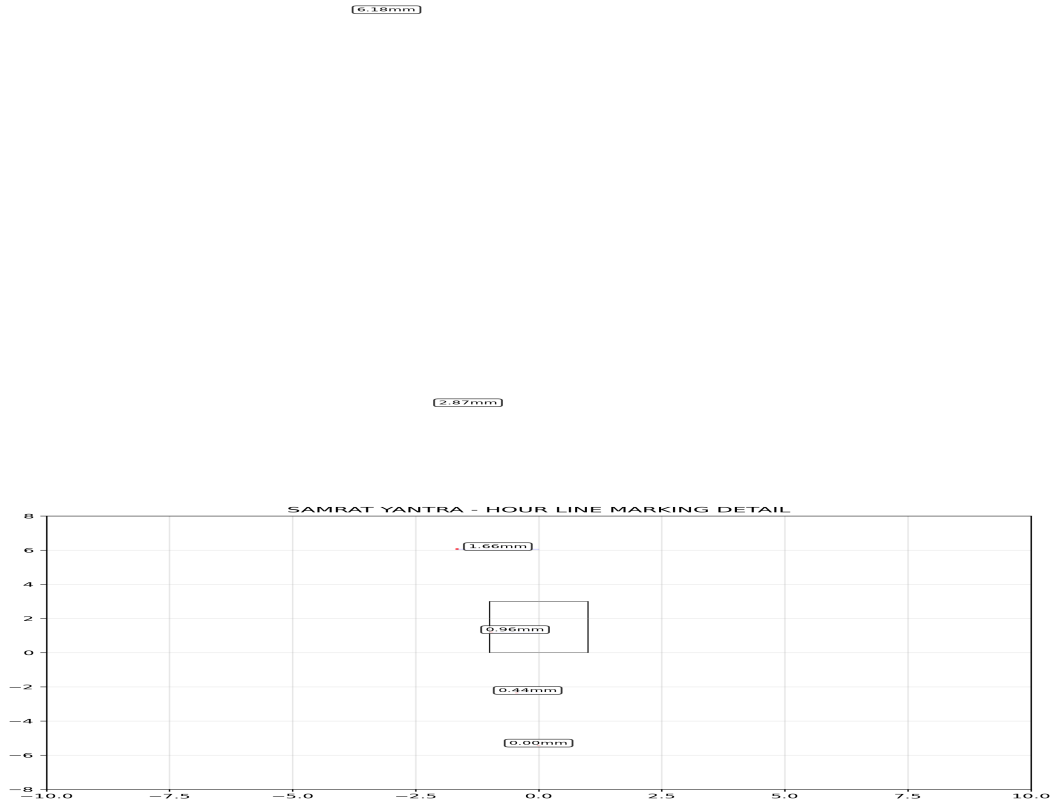


Construction Notes:

- Gnomon height: 24.70m
- Shadow calculations for 12.9716°N
- Concrete grade: M25 minimum
- Steel reinforcement as per IS:456
- Dial faces must be perfectly vertical
- Surface finish: Smooth marble or stone

SAMRAT YANTRA - HOUR LINE MARKING DETAIL

Scale: 1:20

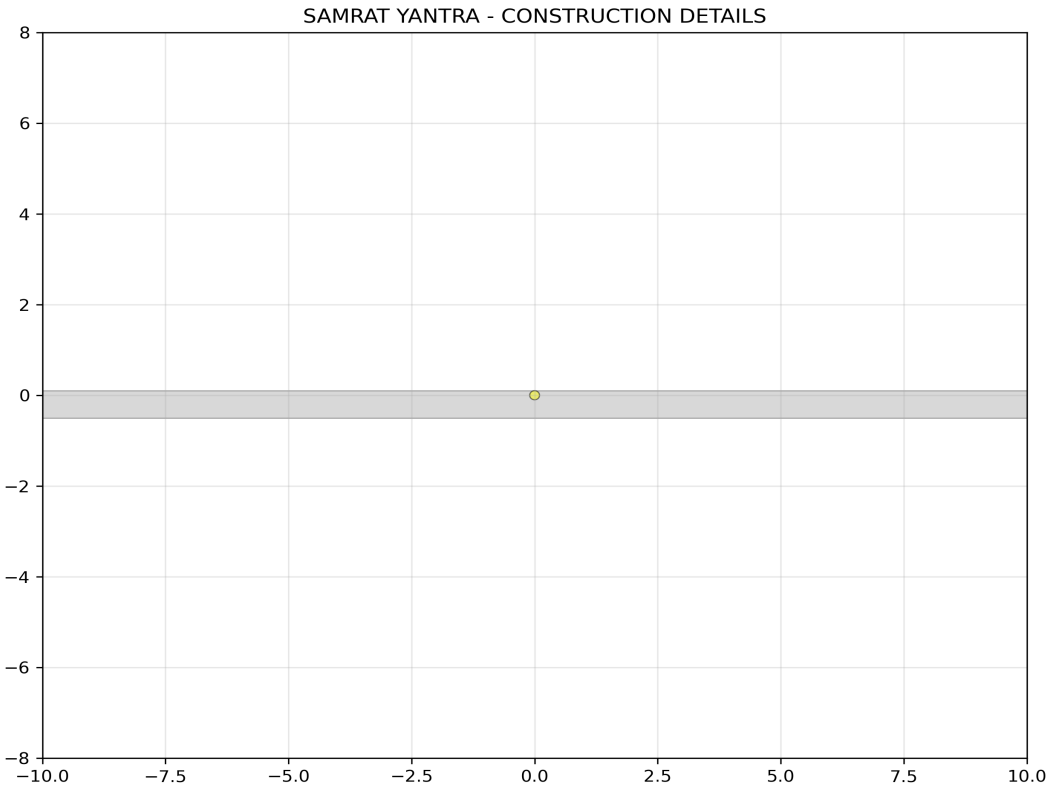


Construction Notes:

- Hour line positions calculated using ray-surface intersection
- Mark positions with ± 1 mm accuracy
- Engrave hour markings 5mm deep
- Use bronze inlay for hour numerals
- Verify positions with solar observations
- Weather-resistant coating required

SAMRAT YANTRA - CONSTRUCTION DETAILS

Scale: 1:20



- Construction Notes:**
- Foundation bolts: M16 grade 8.8
 - Gnomon material: Stainless steel or stone
 - Base platform perfectly level ($\pm 2\text{mm}$)
 - North-South alignment critical ($\pm 0.1^\circ$)
 - Install drainage system