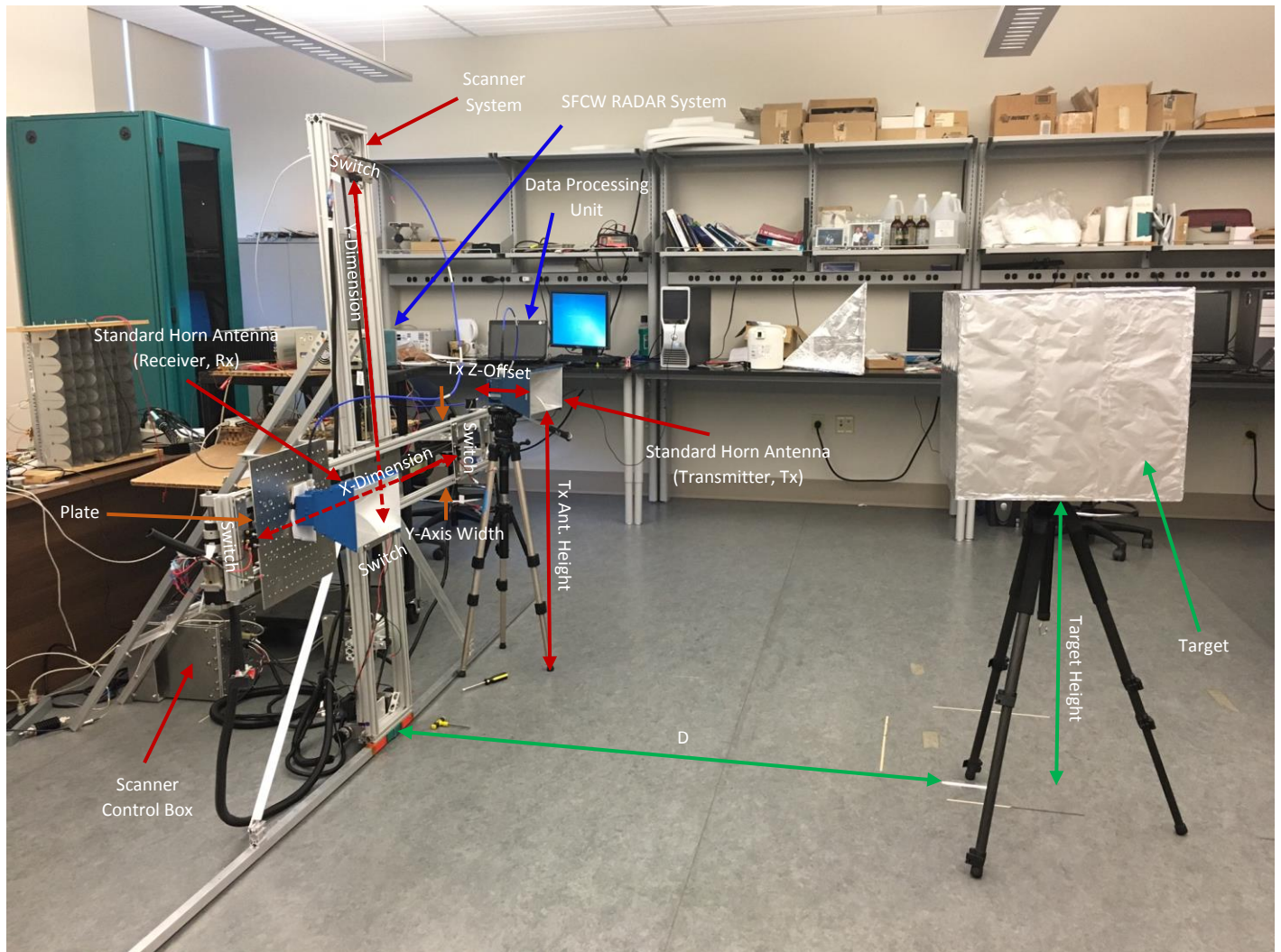


## Setup Scenario and Measurement (Target: Cube)

(August 15, 2016, MHK 628, 11:00 pm)



### Control Box-Software Setup:

#### Scan Area:

X-Dimensions (cm): 80

X-Step: 5 cm

Dwell Time: 30 sec.

Y-Dimensions (cm): 70

Y-Step: 5 cm

X-Dimension & Y-Dimension are the distances between 2 switches

D: 160 cm

Target Height: 88.5 cm

Tx Ant. Height: 104 cm

Rx Ant. Height @ Origin Point: 81 cm

Distance between Tx Ant. and Target: 150 cm

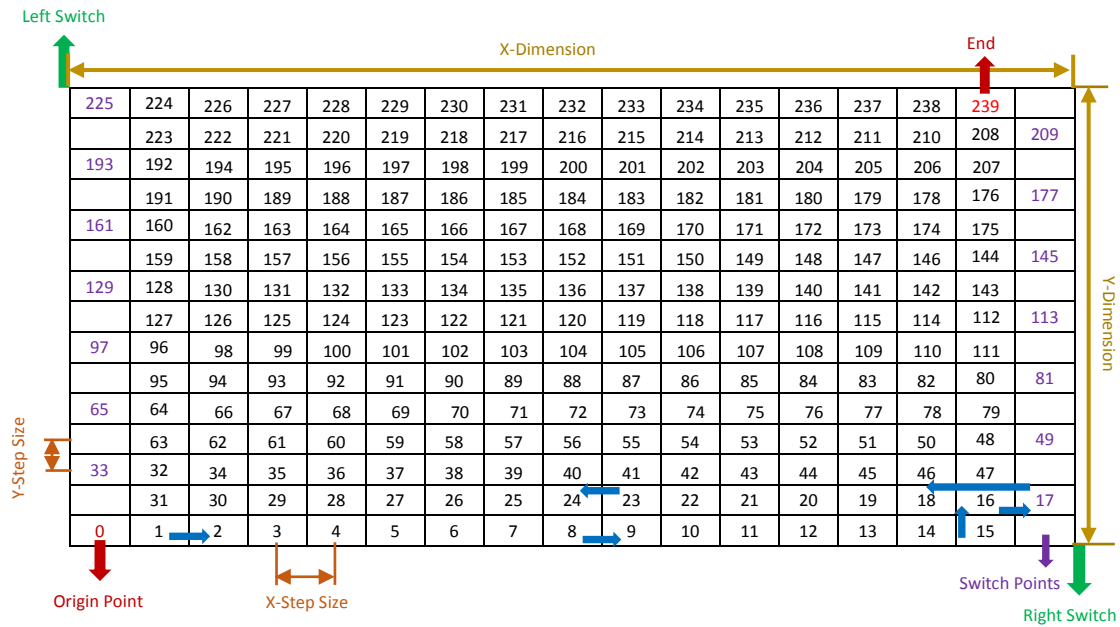
Tx Z-Offset: 27 cm

Rx Z-Offset: 21.5 cm

X-Offset (Minimum Distance between Tx and Rx): 57.5 cm

Y-Offset (minimum Height between Tx and Rx): 5.5 cm

## Scan Pattern (Stop Points) (Front View) of Receiving Antenna (Standard Horn Ant.)



Dwell Time (Stop Time) @ Each Stop Point: 14sec.

Dwell Time (Stop Time) @ Each Switch Point: 28 Sec.

LabView Data-Collecting Time: 1 sec. (We collect data at each stop point for 1 seconds using Labview.)

Real Scan Area:

X-Dimensions (cm): 122.5.5

X-Step: 5 cm

Dwell Time: 14 sec.

Y-Dimensions (cm): 97.5

Y-Step: 4.5 cm

Plate Size: 35.5 cm x 35.5 cm

Y-Axis Width: 21 cm

X-Dimension & Y-Dimension are the distances between 2 switches

### Notes:

1. Every time we close and open the software (to send commands to control box and scanner system), we need to push Startup System Button first and wait until the plate comes to origin point (Then we can initialize setup and push Start Scan button).
2. While the system is scanning, if we turn the system off using the ON/OFF switch on control box (but not close the controlling software) and turn it on again, it will start scanning from the last position (but the software must be open).
3. When the system finishes the scanning, we can push Go To Origin button and the plate will return to the Origin Point from the End Position (The system should be on and the software should be open).
4. To limit the scan area, we can change the position of the switches. It is better to change the left switch for limiting X-Dimension and bottom switch for limiting Y-Dimension.