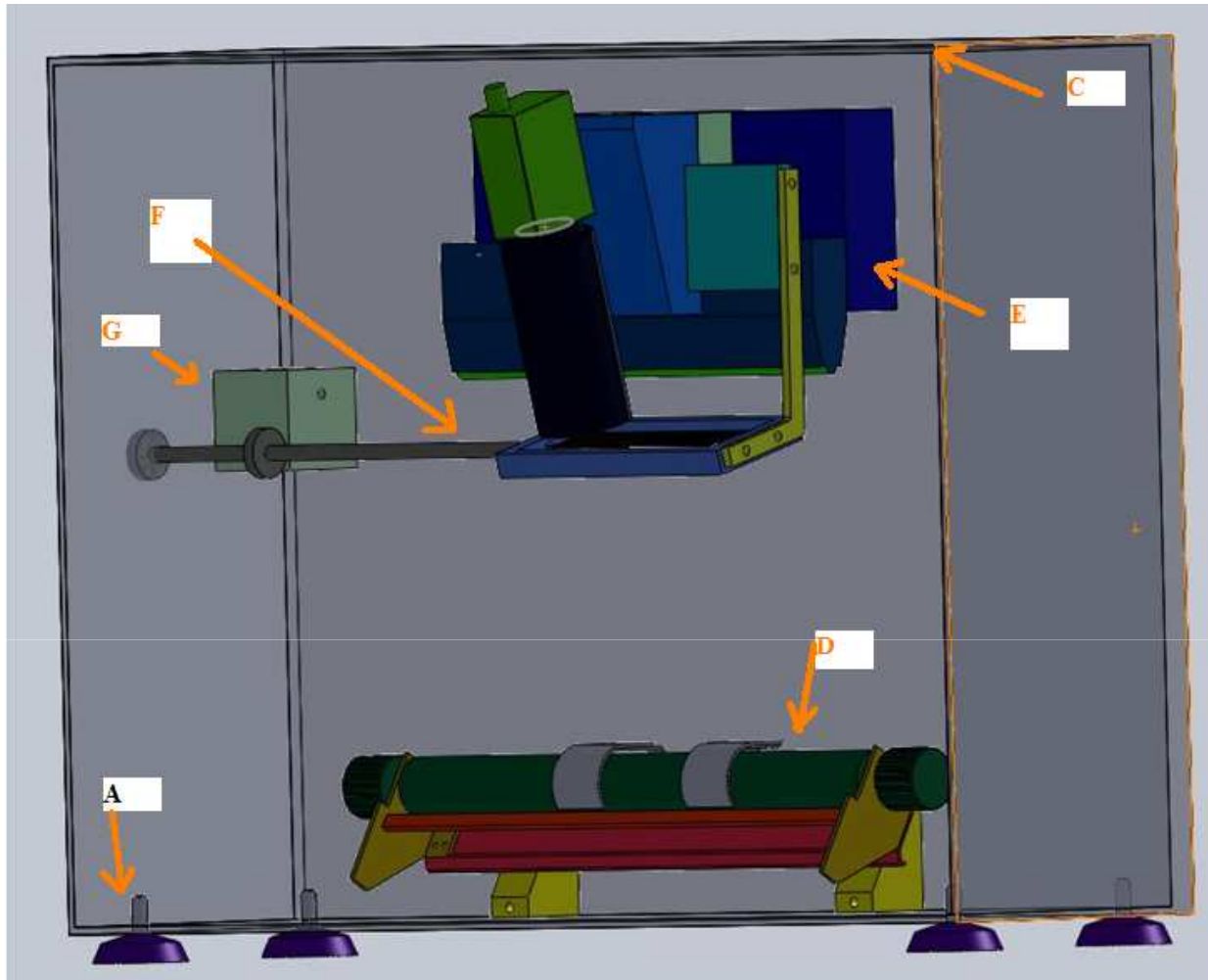


Device model



A~device sits atop 4 rubber vibration dampening/anti-slip feet

B~device front door(not shown in view) opens towards user utilizing a "push to open" latch , door will auto open by means of hydraulic piston assist.

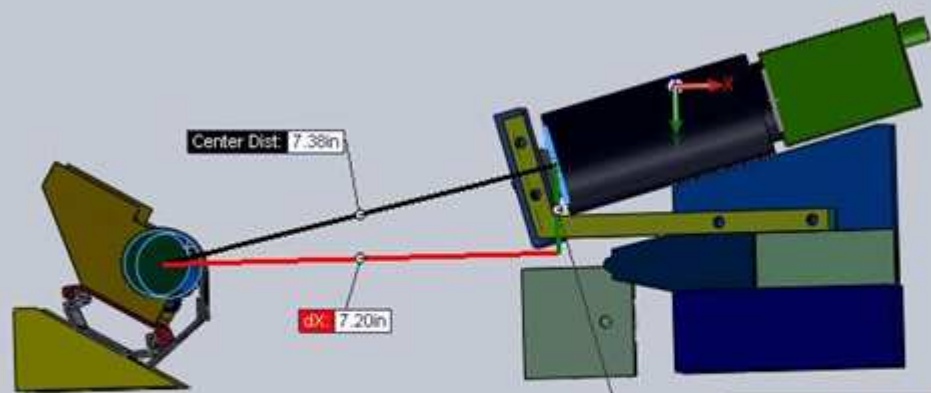
C~enclosure constructed of 1/8" thick aluminum 5052 alloy- corrosion resistant (will ensure robust anti flex enclosure)

D~paper is manually loaded into spool , spool is on linear rail with thumb operated lockrelease (device provides full target tracking on sample sheet.

E~optics package is rigidly mounted atop nylon spacing & angle blocks with provide the proper 14 degree angle and 7 inch lens to sample face distance.

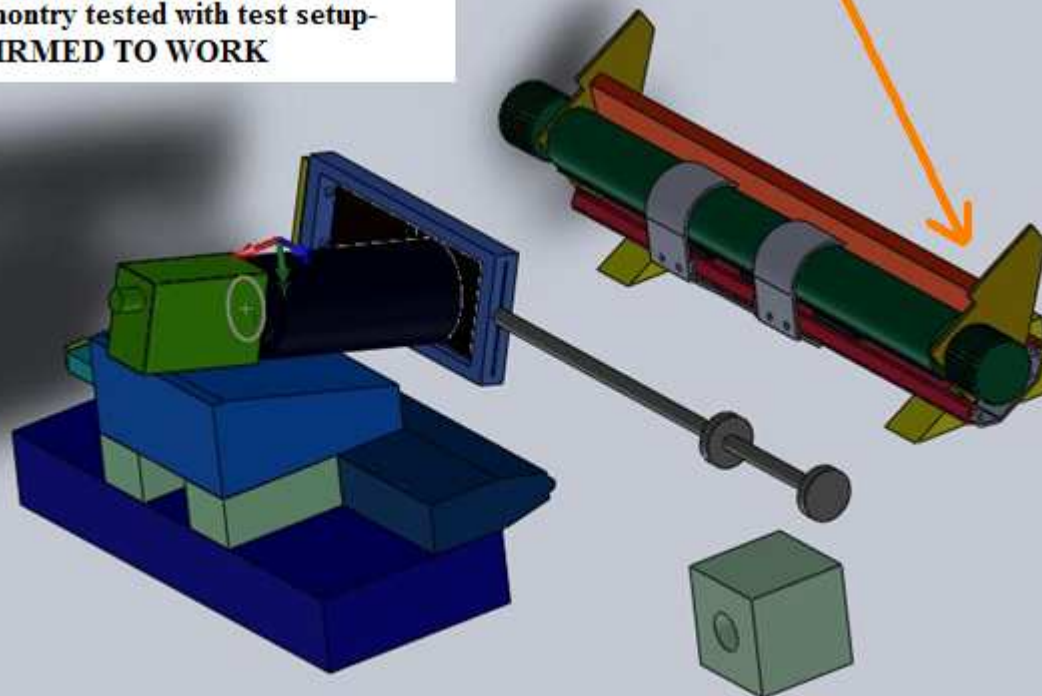
F~manual polarizer movement via push 2 position push rod(ensures perfect 0 to 90 degree polarization change)

G~LED block attached to enclosure wall will house tri-color LED and affix fiber optic input cable

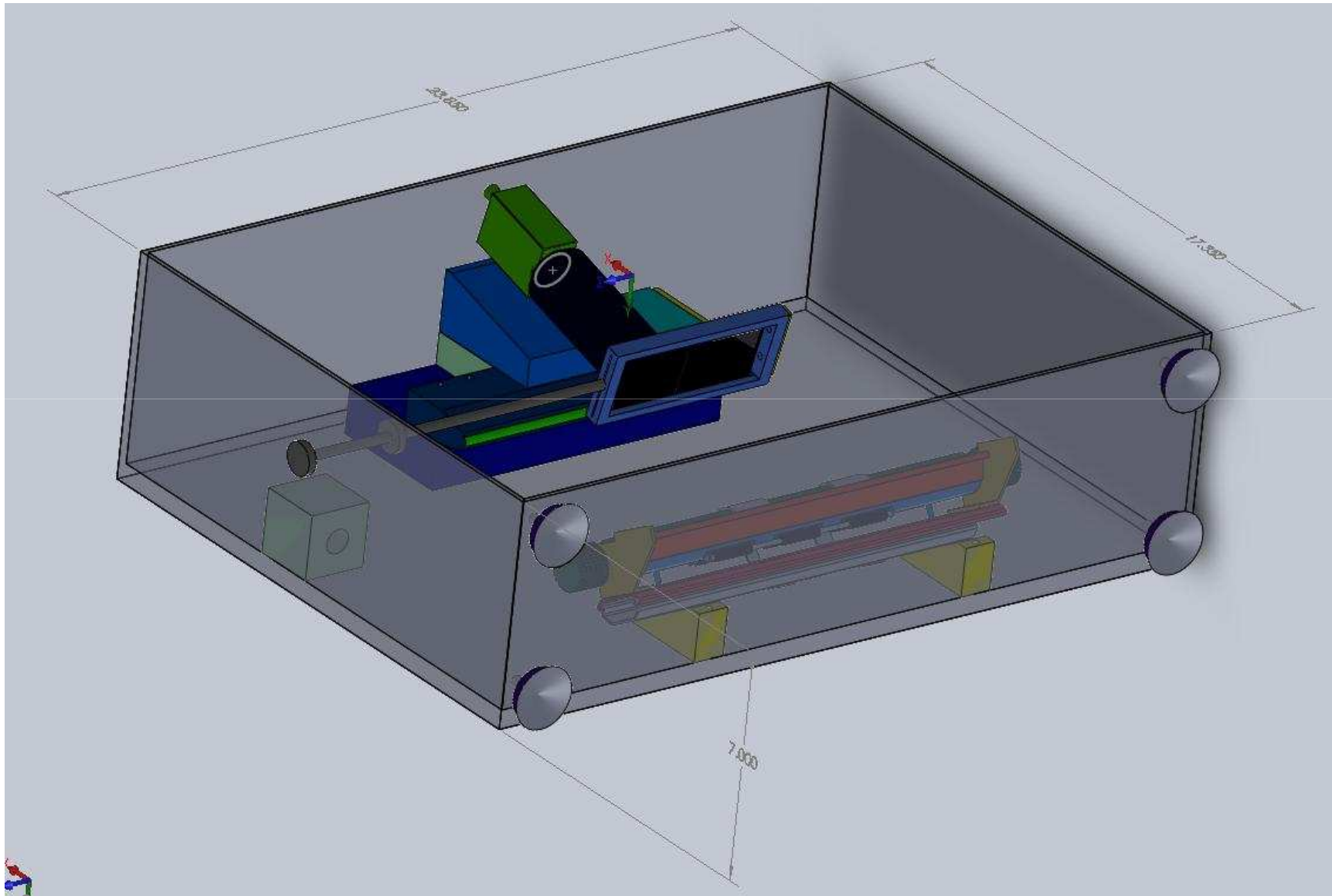


optical geometry(side view)
 $\tan^{-1}(1.6/(7.2-.6))= 13$ degrees
 customer specified range 10-15 degrees
 spool diameter = 1.2 "
 distance to target 7.38 "~ within spec
 All gemontry tested with test setup-
 CONFIRMED TO WORK

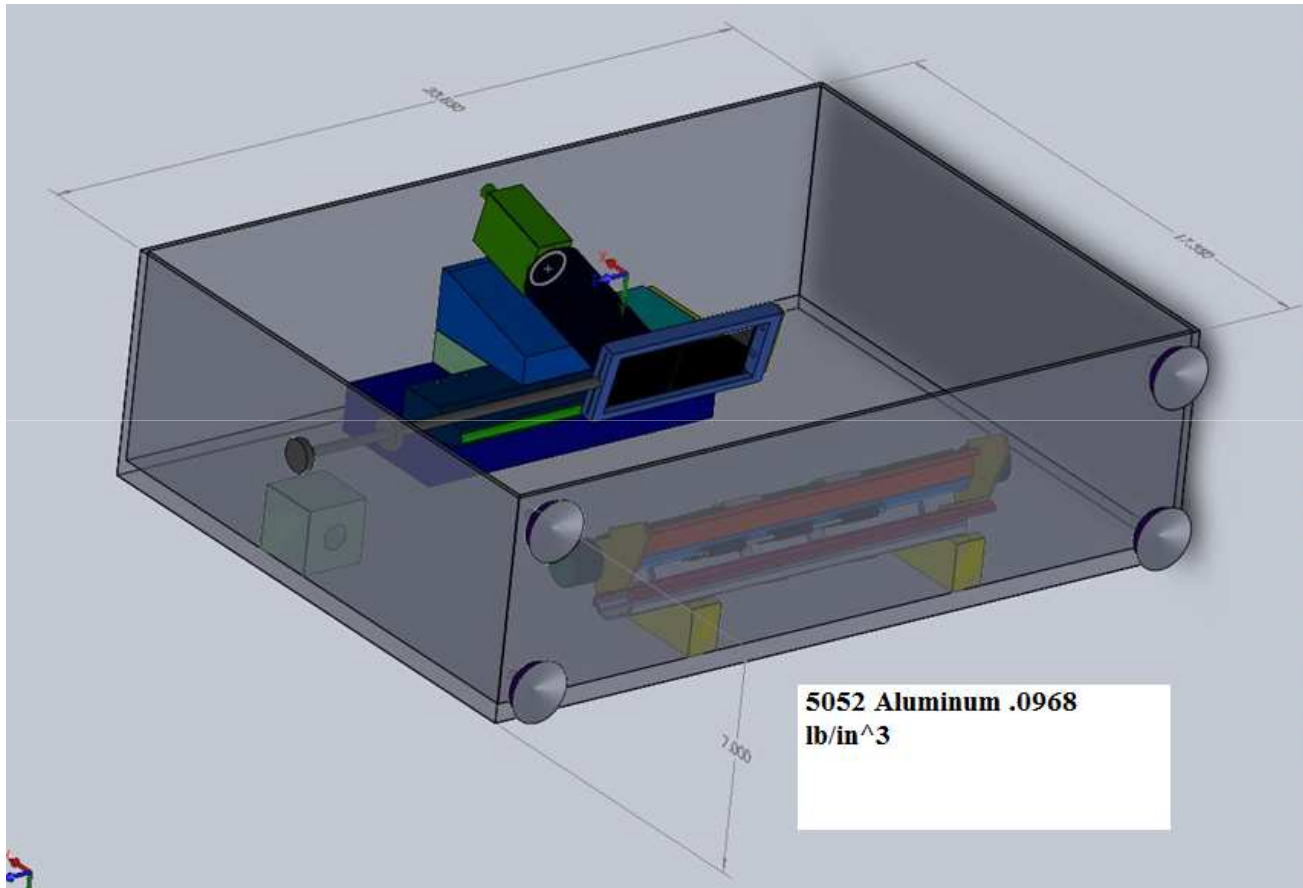
paper laoding device tilted at 30
 degrees to give +- 80 degrees of
 viewing angle around smaple



Device Prototype size



Device weight



Device weight

~camera w/ lens 1.75 lb

~nylon spacing/angle blocks total 3.8170 lb

~polarizer w/frame approx .5 lb

paper spooling device approx 7 lb

~led block .1 lb

~enclosure 16 Lb

~aluminum angle blocks .2 lb approx

TOTAL weight ~ 29 lb