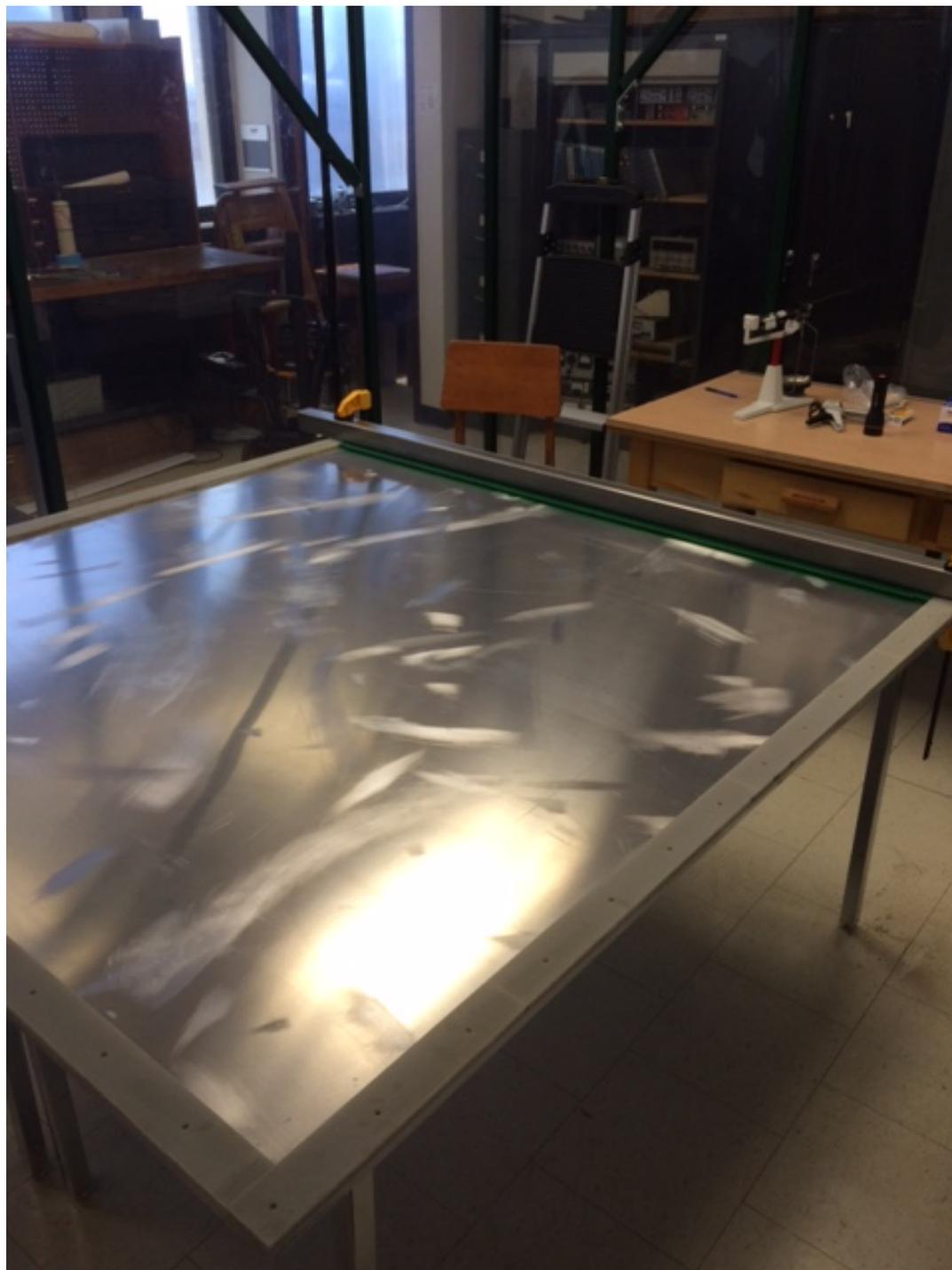
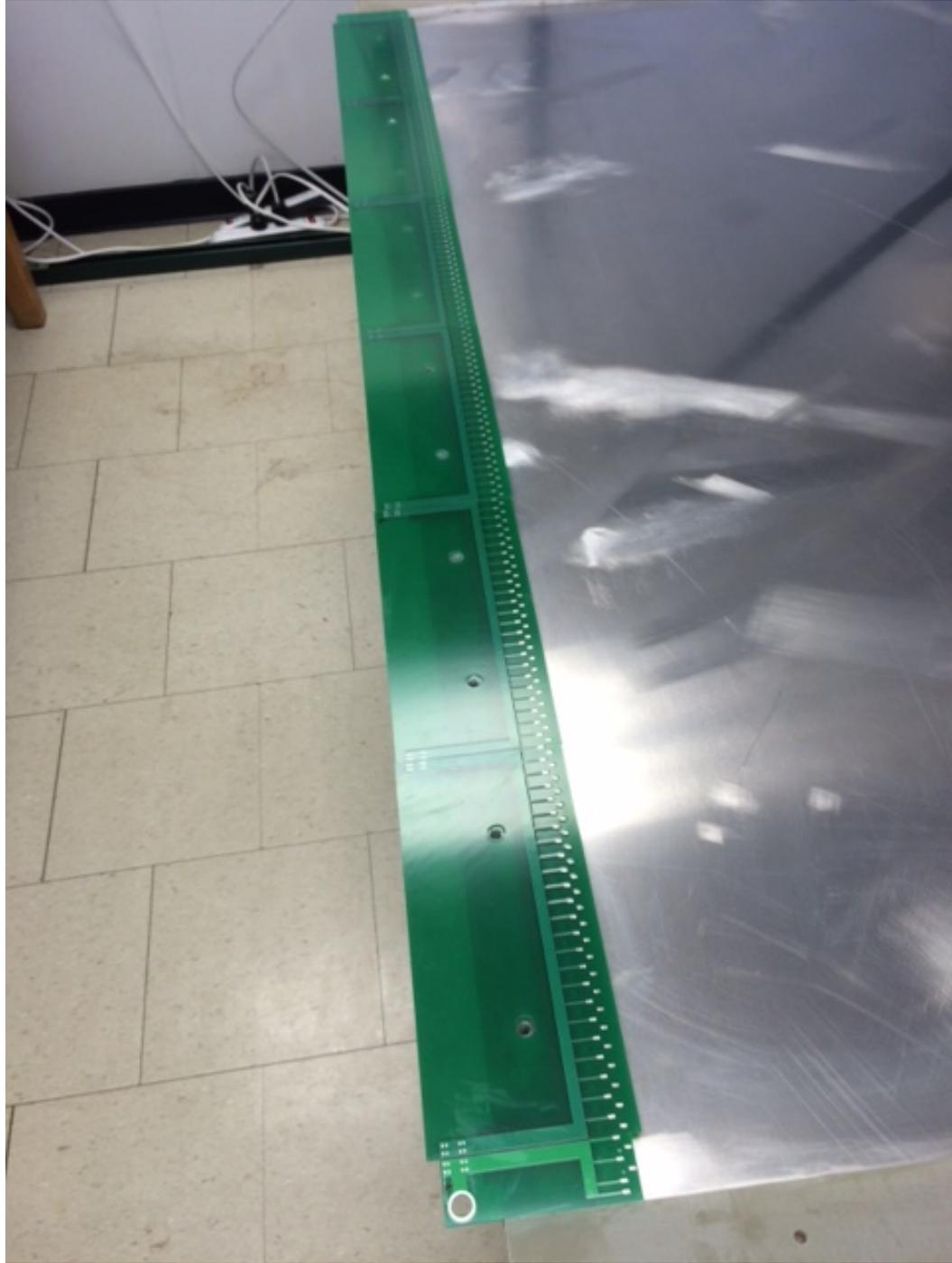
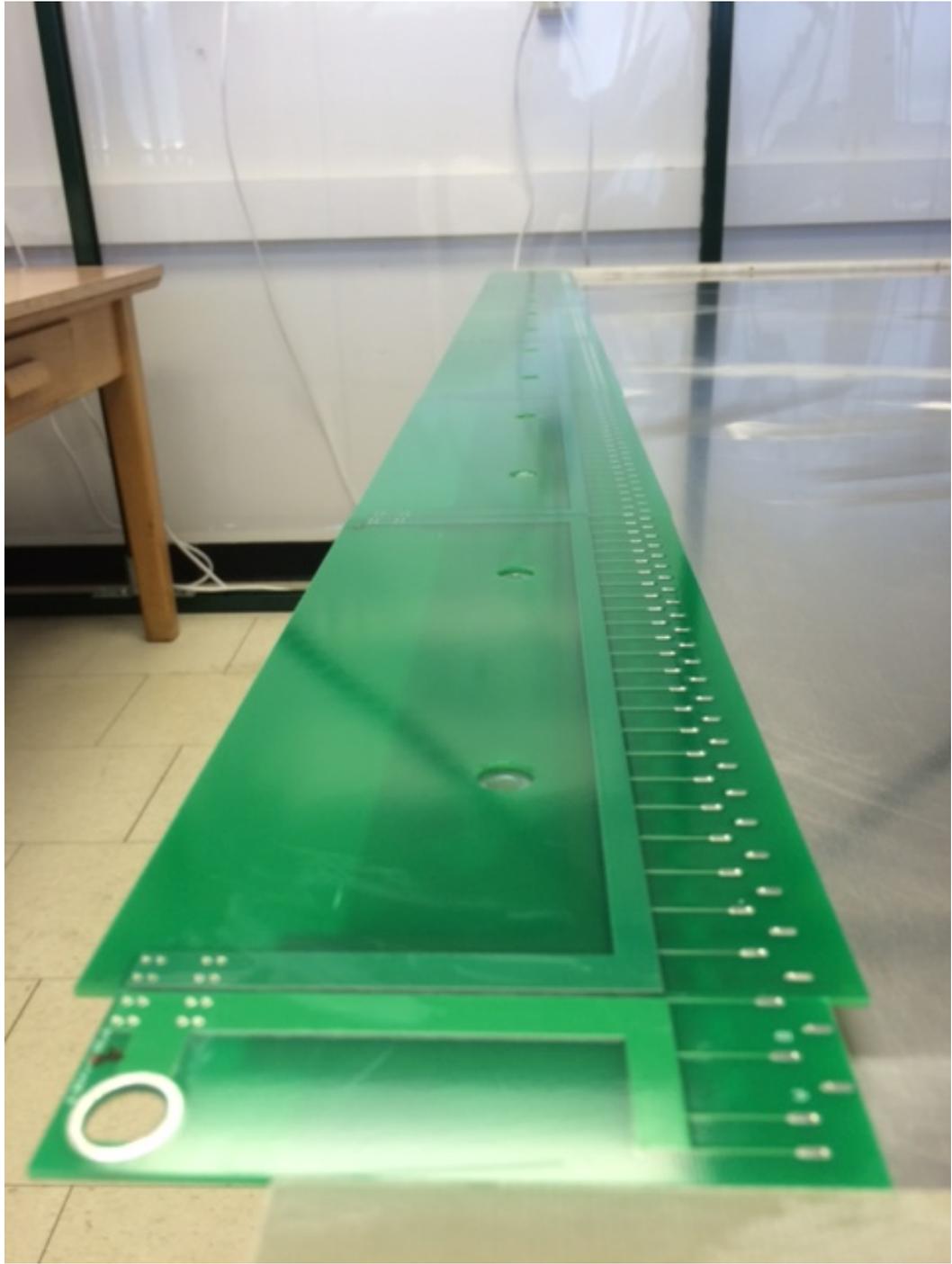


# MWPC Construction



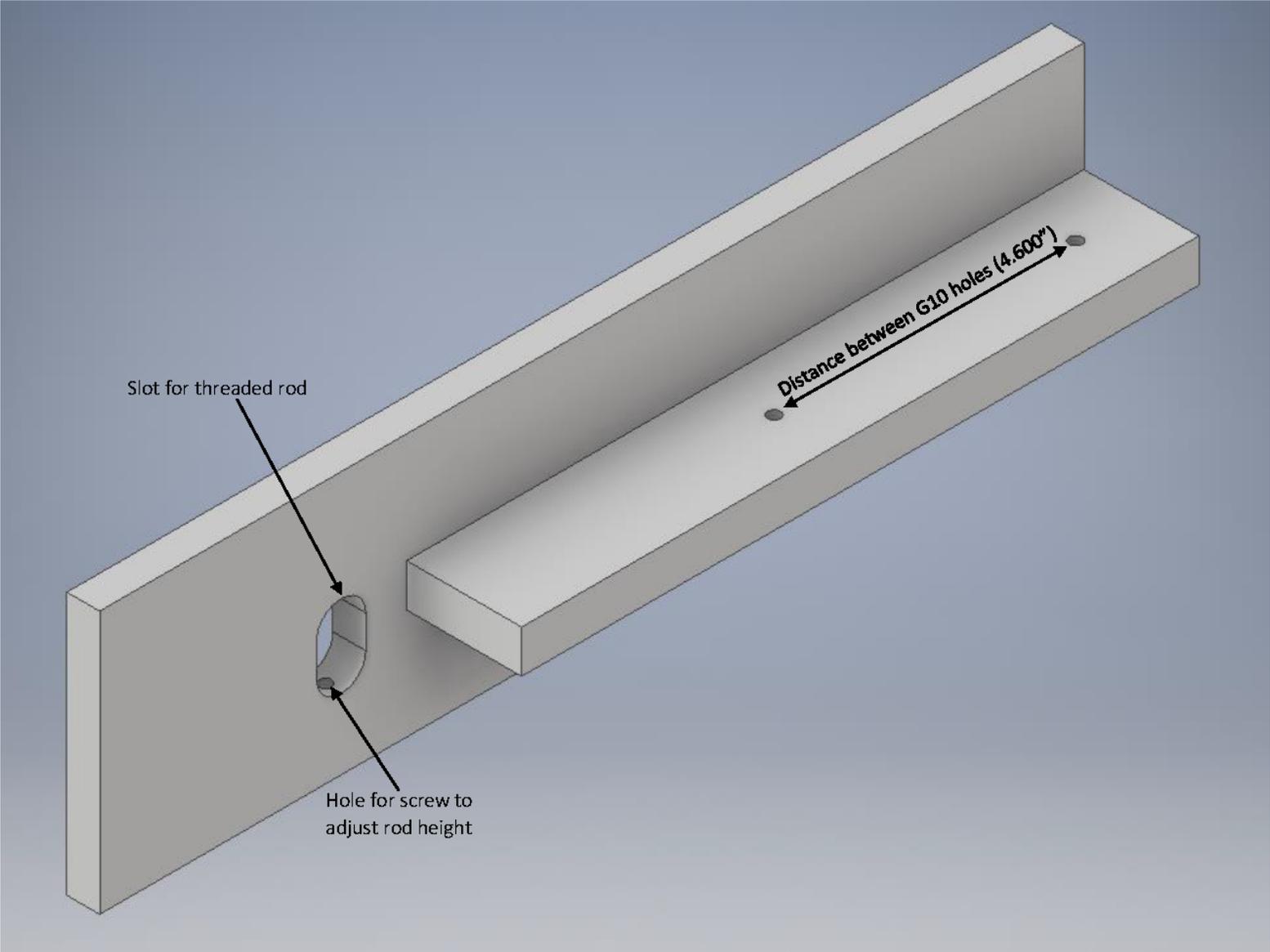


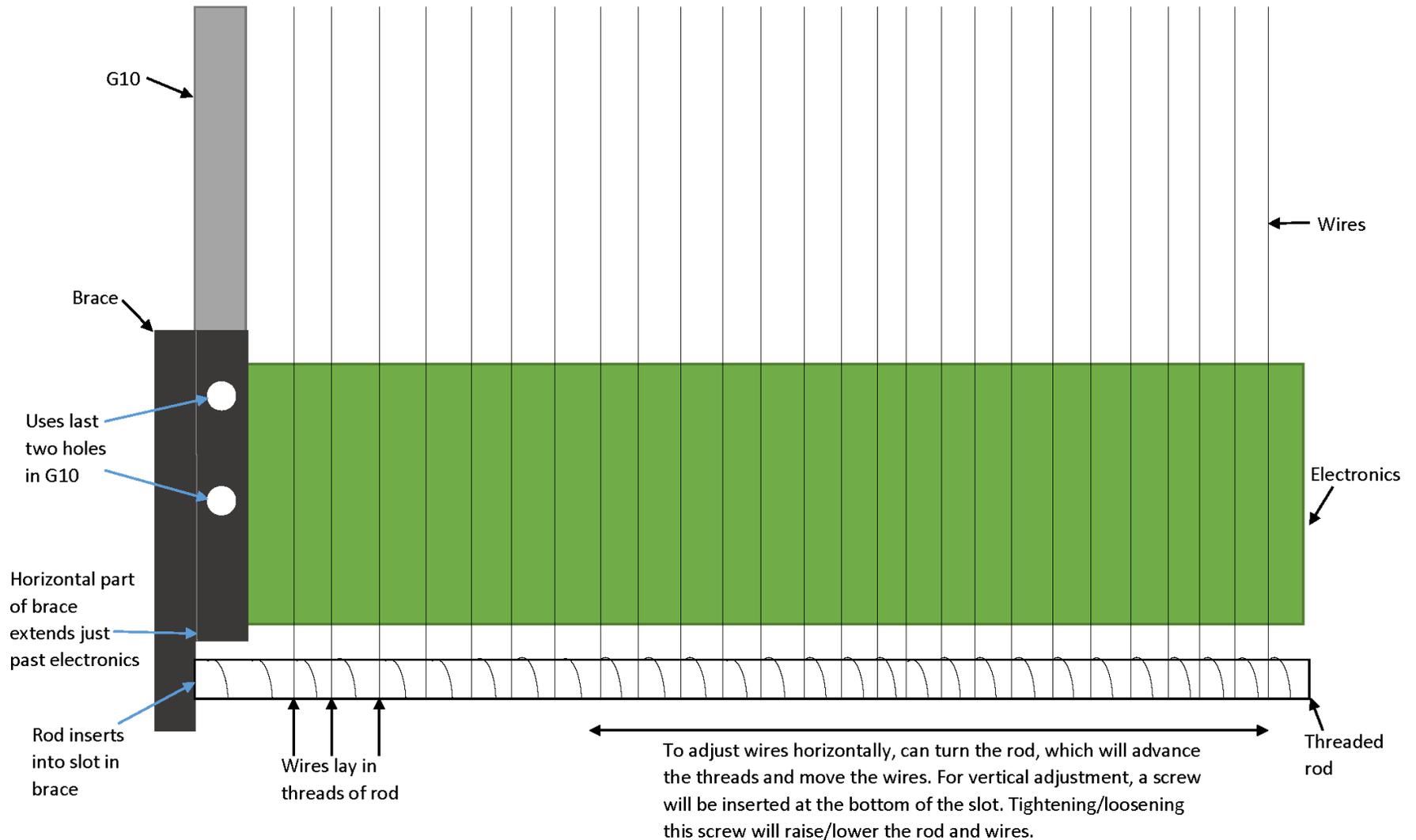






# Wire Stringing





- Threaded rod is usually manufactured by “rolling”, circular stock is rotated through a die that cuts the threads. Acme threads have the best tolerances, about +/- 9 mil/foot.
- The other process is to grind the threads, cutting away metal. Can achieve accuracies of a few mil over 10's of feet.

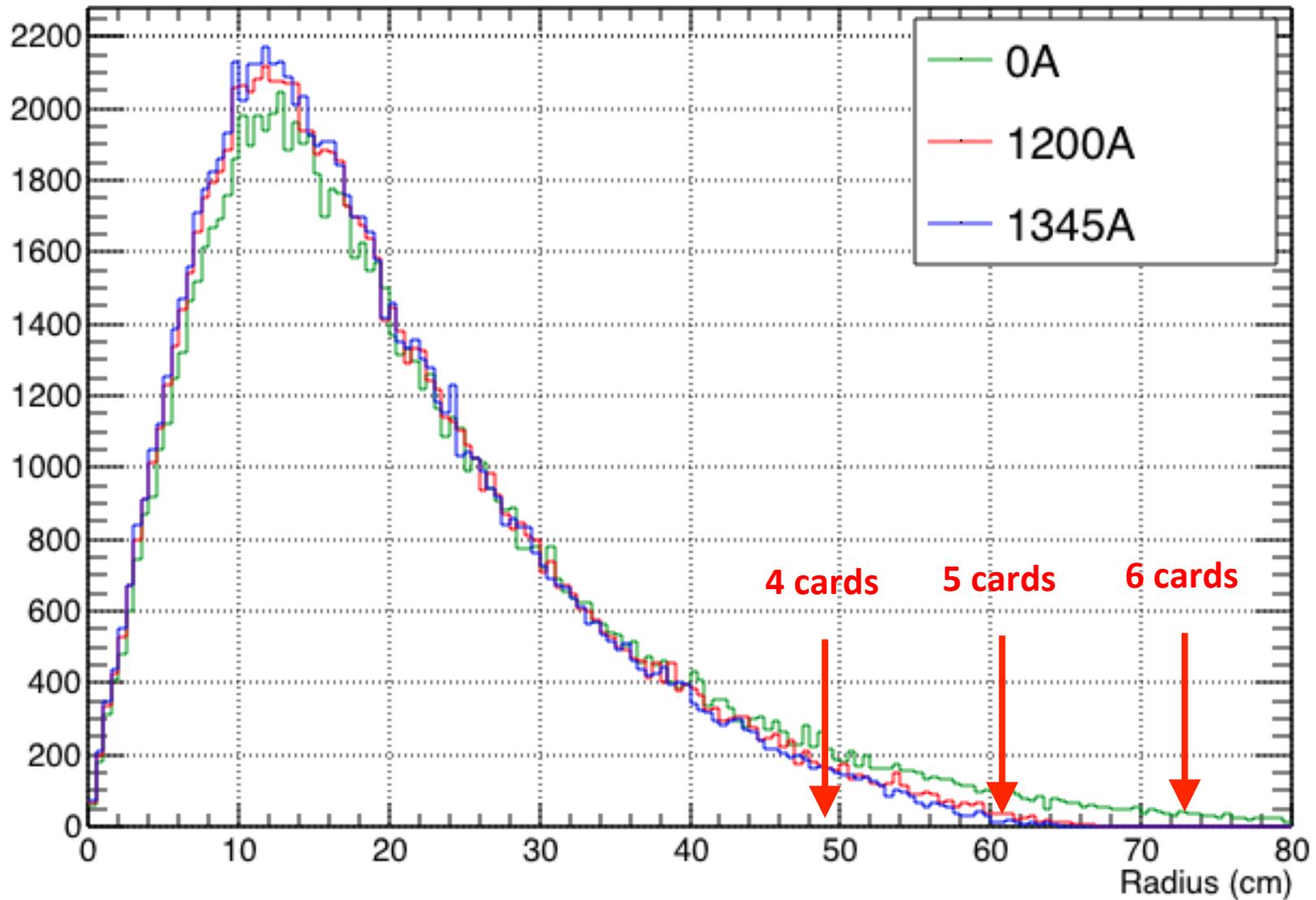
## **Next Steps:**

1. Complete attachment of the HV capacitors onto the amplifier boards (waiting for Bobby to return)
2. Attach amplifier boards to bottom aluminum plate
3. Finish machining O-ring groove into G10 slats (Rick in machine shop)
4. Attach G10 slats to top aluminum plate
5. Move completed top plate into clean room
6. String wires
7. Close detector
8. Flip the detector top side down, complete electronics hookup
9. Flow gas, start testing

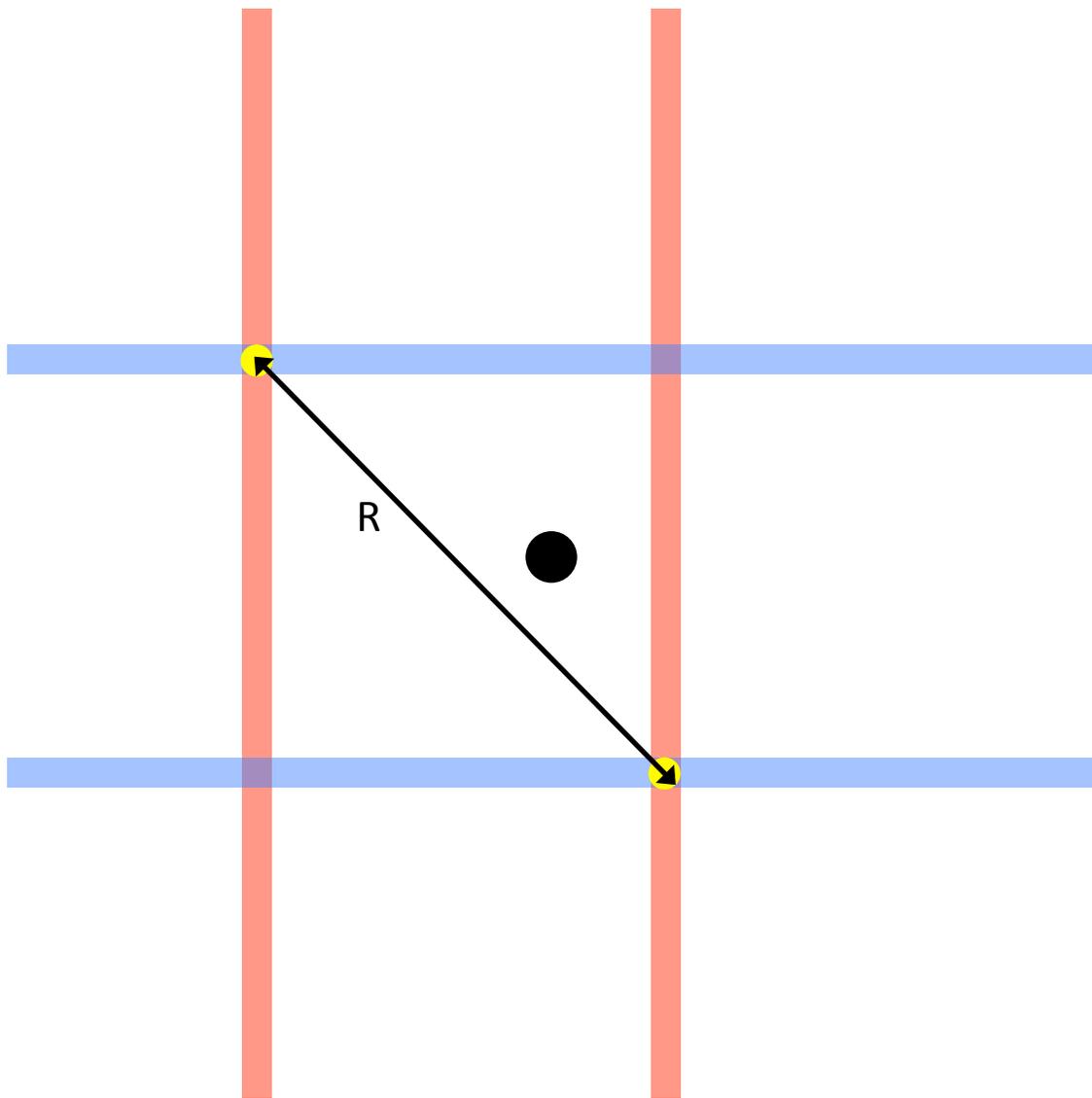
## **Right Size for MWPC's**

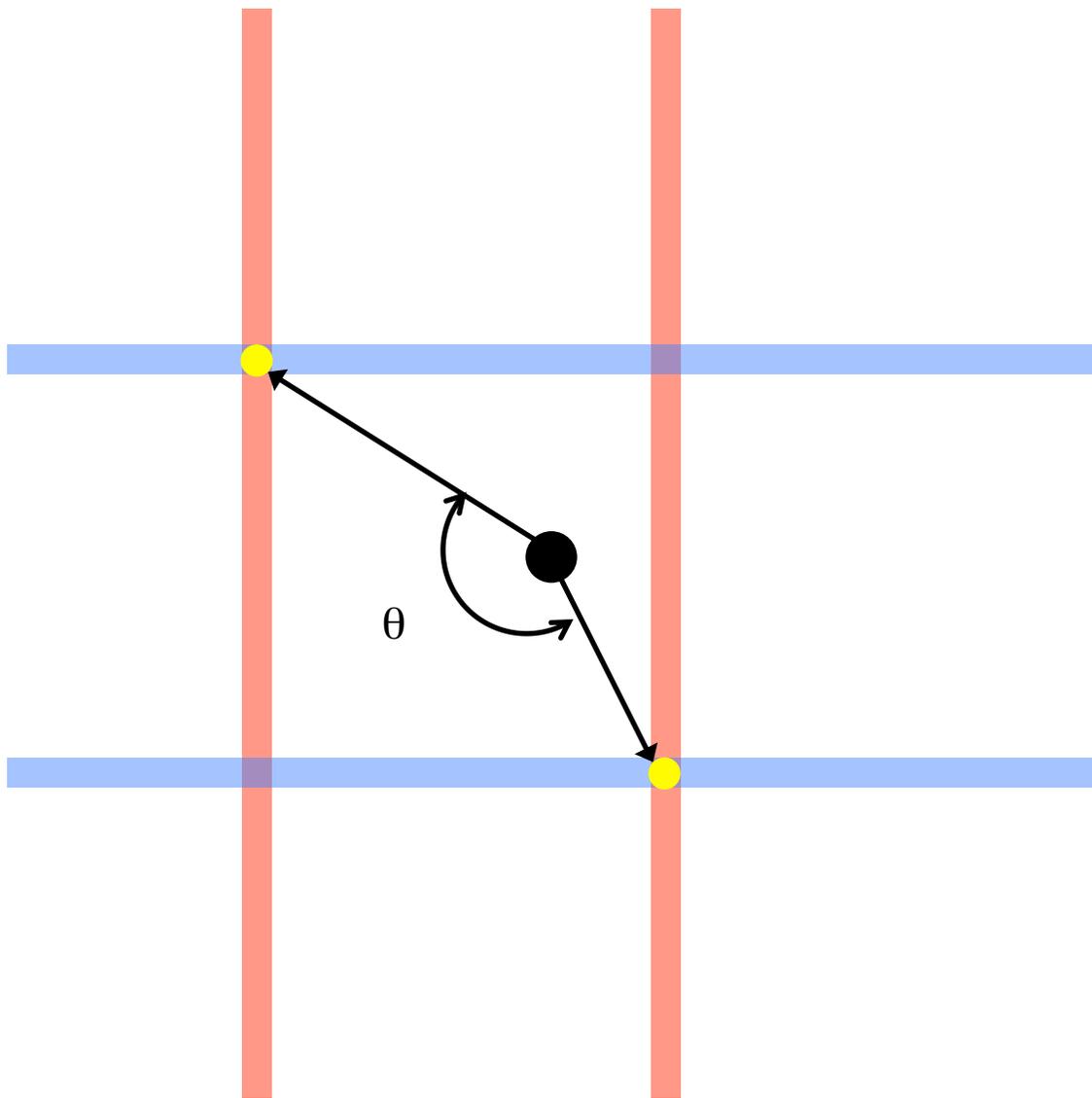
# Radius of $\pi^+$ projected to TOF

June 28, 2016 DL  
git revision #233ff9d



# Using TOF for Triggering

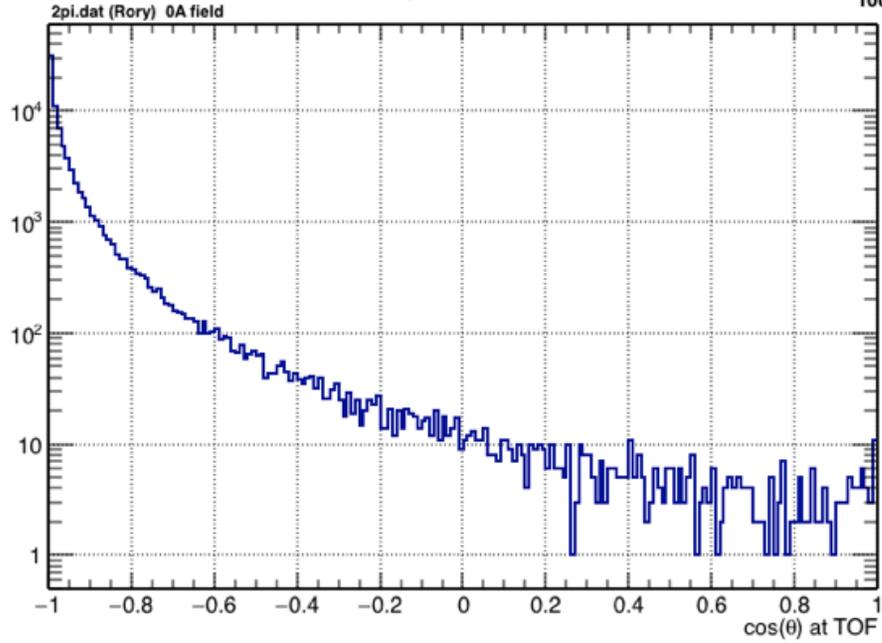




$\pi^+\pi^-$   $\theta$  separation at TOF

June 28, 2016 DL  
git revision F233F9D  
100k events

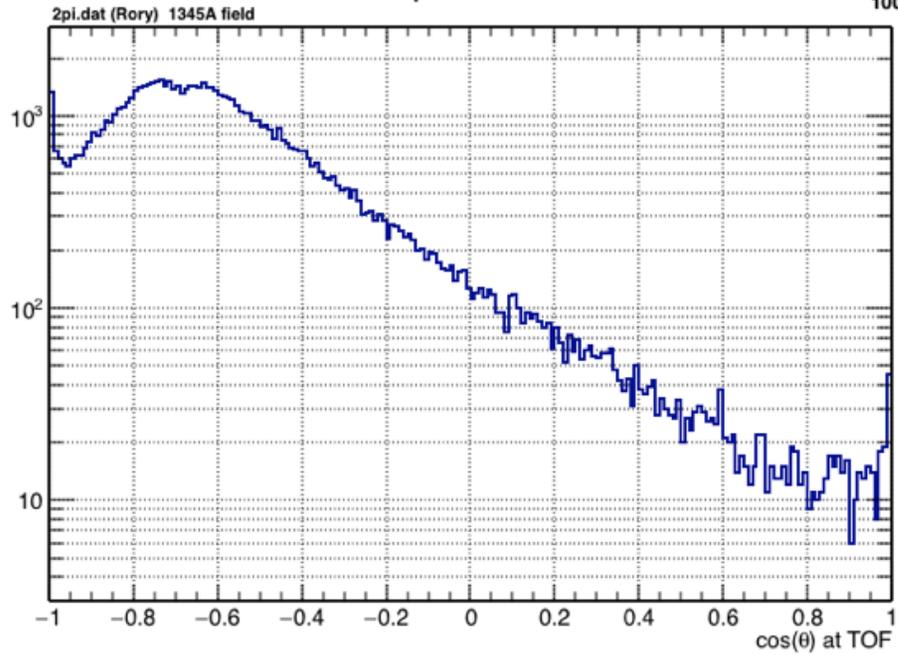
0 A



$\pi^+\pi^-$   $\theta$  separation at TOF

June 28, 2016 DL  
git revision F233F9D  
100k events

1345 A



<b>Minimal trigger condition: 4 bars hit, exclude central bars 22 to 23</b>	<b>Trigger Rate</b>
No additional requirement	23 kHz
18 cm minimum separation between hits	21 kHz
$\cos \theta < -0.7$	7.0 kHz
All the above	7.0 kHz
$\cos \theta < -0.4$	8.5 kHz
$\cos \theta < 0.0$	12.5 kHz
$-0.9 < \cos \theta < 0.0$	7.5 kHz