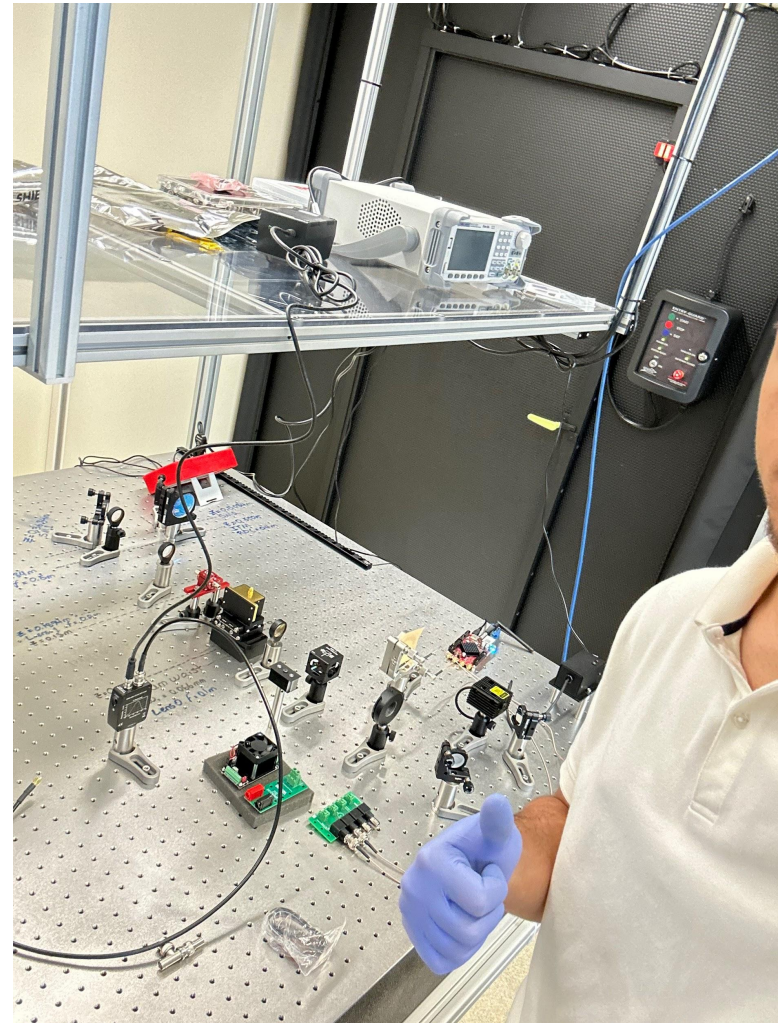


# Visible Light Cavity Update

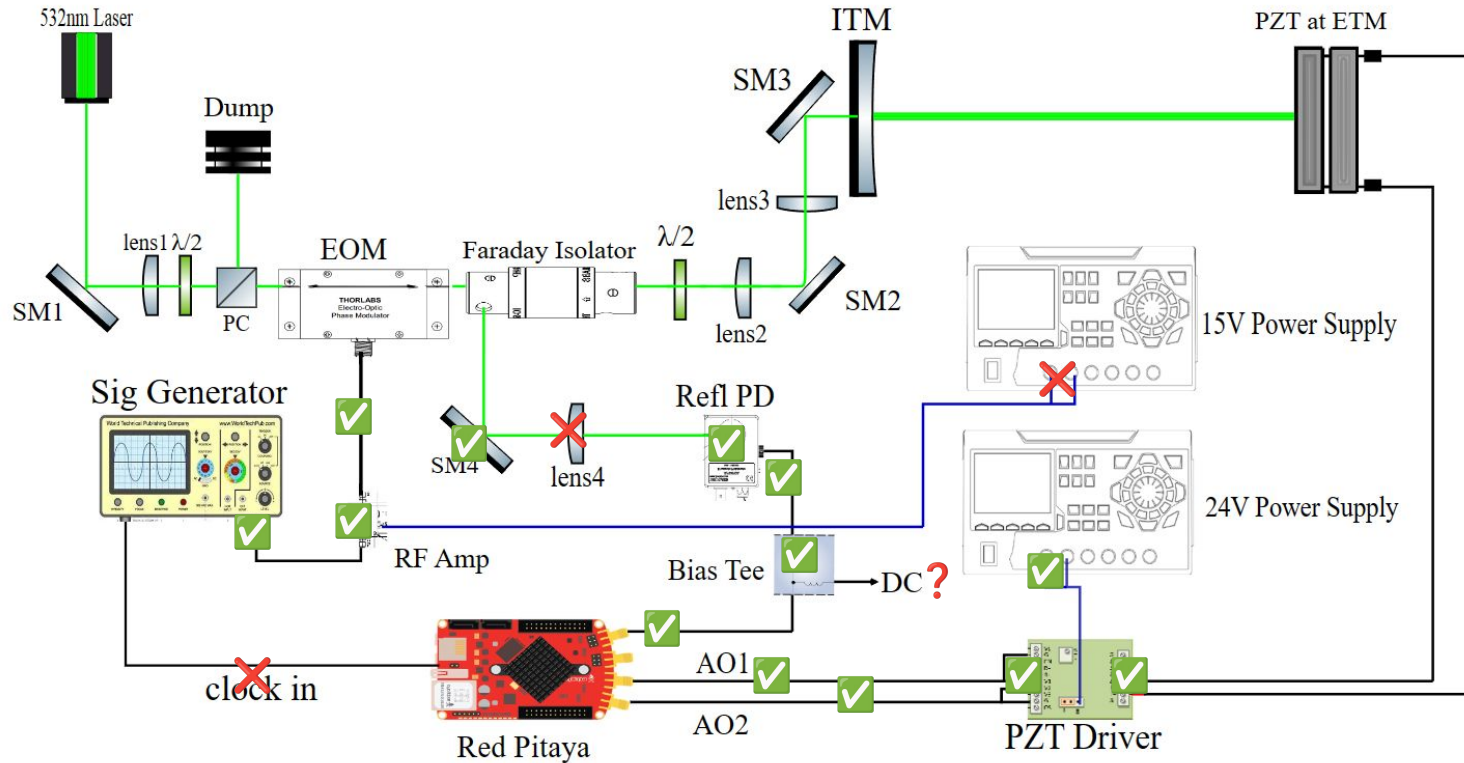
Peter Carney  
4/8 - 4/15

# Status as of Monday, 4/8/2024

- Started feedback control system connections

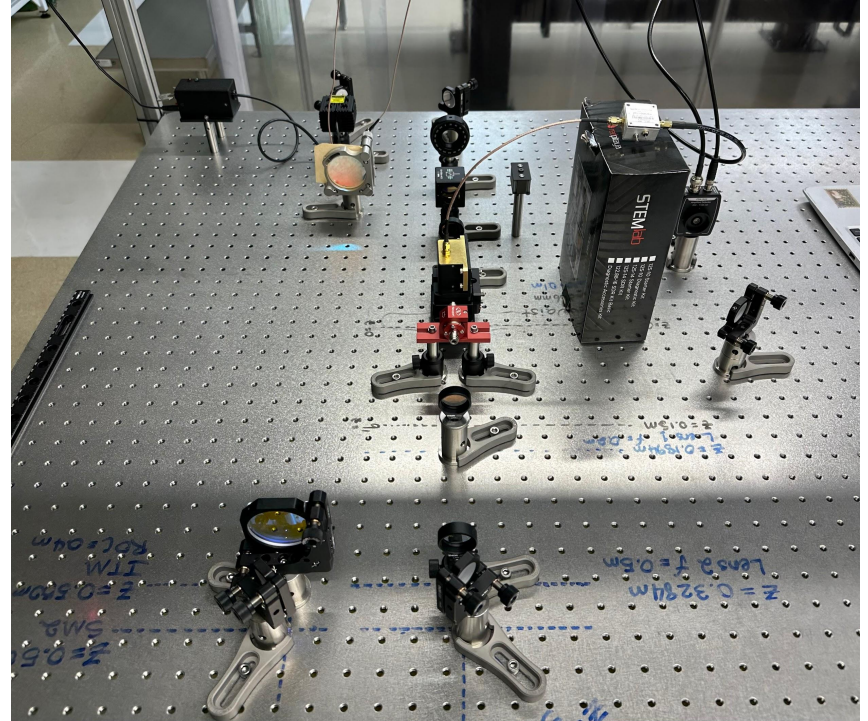


# Design for Feedback Control System

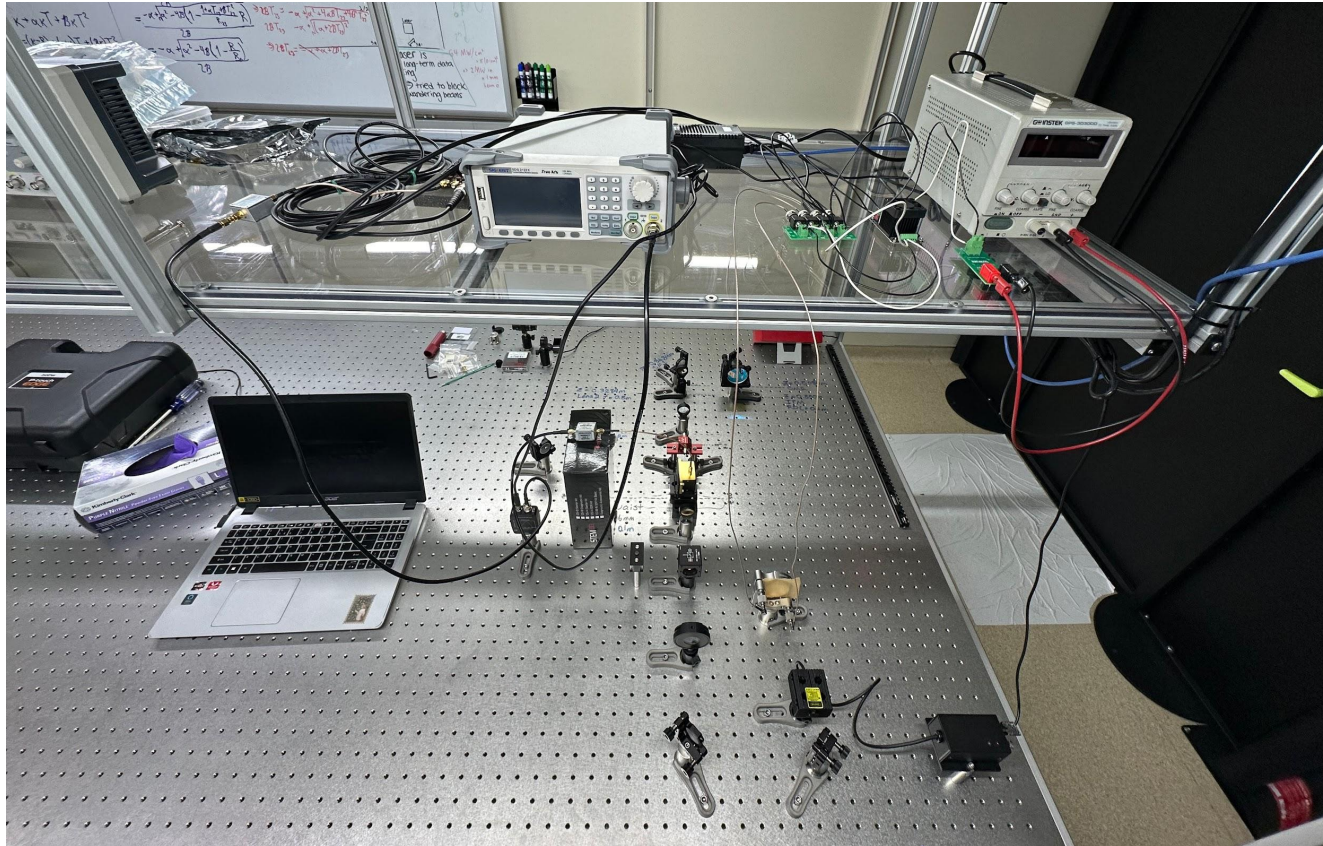


# Status as of Monday, 4/15/2024

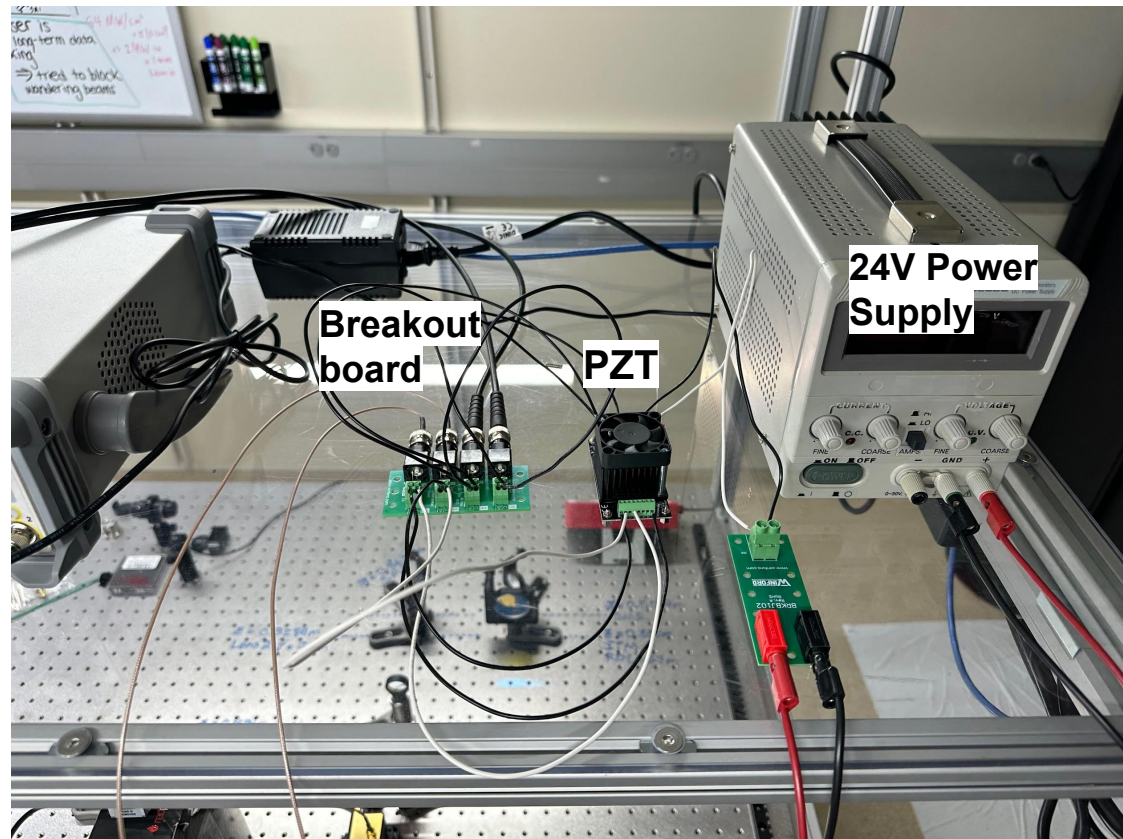
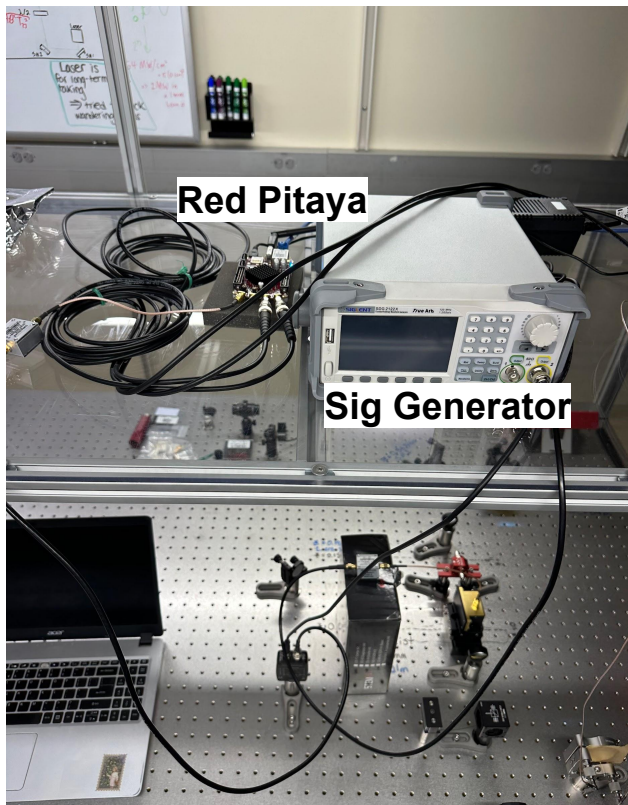
- Piezo driver connected to Red Pitaya and ETM
- Piezo driver connected to 24V power supply
- All electronic components stored on upper shelf (except for RF amplifier)
- Missing Lens holder to focus beam into PDA



# Status as of Monday, 4/15/2024



# Status as of Monday, 4/15/2024



# Next Steps:

## Immediate:

- Bias Tee to DC power?
- Open up Red Pitaya oscilloscope and check if PDA is reading correctly.
- Secure lens mount
- Supply power (from 24V supply) to Piezo driver to sweep the ITM
- ?

## Future:

- Analyze cavity FSR. Good results?
- Check how to use red pitaya (or another source) for signal mixing. External clock?
- Connect RF Amplifier to Signal generator to power EOM
- ?