# Checking the PLL lights on the MPE

## Background

The PLL tracks the drum encoder in order to synchronize the data being imaged with the position of the drum.

Eight small yellow LEDs on the edge of the MPE board indicate PLL tracking. During normal operation the center most 2 to 4 LEDs should jitter and the outer most two should never come on visibly.

Use this procedure to inspect the PLL LEDs when PLL tracking errors occur.

## Context

☑ Trendsetter 3230 (TS4 Version)

☑ Trendsetter 3244 (TS8)



**WARNING:** This procedure requires you to access the power box with the power to the output device turned on. Failure to follow the safety policies and procedures regarding shock hazards and electrostatic discharge may create a dangerous situation that could result in serious injury as well as damage to the output device. For more information, see: http://techplanet.creo.com/output/computer_to_plate/all_ctp/nav/safety.htm

## Steps

1. Enter the commands
   ```
   drum spin 165
   plot on
   ```
   assuming a normal plot speed of 165 rpm.
2. Check the LEDs to make sure they are behaving as described.
   - If no LEDs are on, enter `plot on` again.
   - Excessive jitter (outer most LEDs are flickering) indicates a potential tracking problem. Causes include:
     - bad drum servo amplifier, usually producing above average audible noise
     - excessively tight or excessively loose drum drive belt
     - misaligned tach encoder locking collar
     - damaged encoder cable
3. See General VLF Drum drive, encoder and PLL troubleshooting.