Sept 1,2023

The magnetic north project is moving along. The compass needle is in place and quietly hidden away in the basement. It stationary in as much as nobody ever can touch it. I have the baster thing to perturb it and it works fine. I was worrying about spiders and seen none. Drafts, an obvious problem, seem to be nonexistent. The reading, by reading precision appears to be good. The scale is in minutes, that is relative minutes and the reproducibility seems to be better than half a minute (Maybe half a millimeter)

My calculations tell me that magnetic north should move about 0.2 degrees a year. This is about 17 minutes a year, maybe about ¾ of an I inch. Over 365 days this would be about 49 microns a day. so, I need to see down to microns. I suspect that a digital image detector would work; like a photographic image chip. I spent a bit time time ( research) and made some progress.

I have been taking readings against this relative scale. The value seems to move around. Like day to day, even hour to hour. This changes the detector question; I need a bigger range and perhaps less attention to perfect accuracy. Patterns in the movement might be meaningful.

I am moving toward simple digital input from LDRs. The LDR does not like the red laser light, but I think it should work. I am thinking of putting up a simple line of LDRs and connecting them to their specific location. Then the data would be simple; the LDR converted to a position and a time stamp.

I explained it to Jan, my wife in a few minutes. The transparency is pretty powerful.