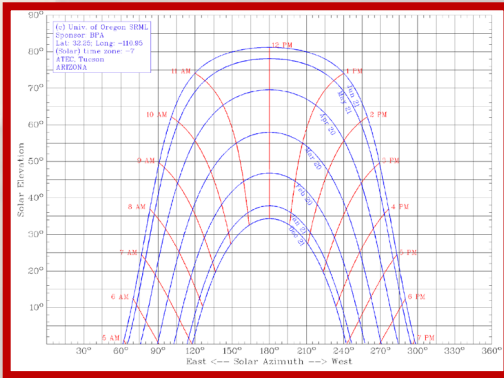


TILT-A-WHIRL: A METHOD TO DEMONSTRATE THE EFFECT OF TILT & ORIENTATION ON SOLAR MODULE OUTPUT

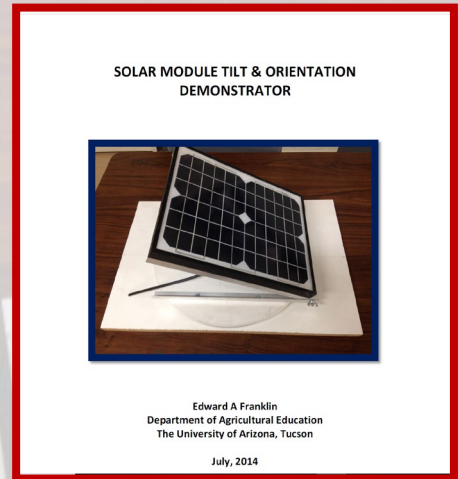
Edward A. Franklin¹



Sun Path Chart for Tucson, AZ. Shows location of sun at different times of the year. Can we validate with our measuring tools?



Multimeter measures DC current of module at each tilt position and orientation



Job Operation Sheet (JOS) created to show how to construct demonstrator



Module with pyranometer & angle finder in position show solar irradiance level and tilt angle of module.



Non-contact thermometer records temperature of solar cell.



Module tilt to near 90°. Velcro holds meter and angle finder in place, compass shows Azimuth position. Multimeter records DC current.