

PROBLEM:

In the rotating disk and strobe demo shown in class we observed that different flashing rates of the strobe light would make the spot on the disk stand still or move in different directions.

- Assume that the disk is rotating counter-clockwise (CCW) at a constant speed of 21 revolutions per second. If the flashing rate is 12 times per second, express the movement of the spot on the disk as a complex phasor, $p[n]$, that gives the position of the spot at the n -th flash. Assume that the spot is at the top when $n = 0$ (the first flash).
- For the conditions in part (a), determine the apparent speed (in revolutions per second) and direction of movement of the “strobed” spot.