

# Group Problem: Generator

Square loop (side  $L$ ) spins with angular frequency  $\omega$  in a field of strength  $B$ . It is hooked to a load  $R$ .

- 1) Write an expression for current  $I(t)$  assuming the loop is vertical at time  $t = 0$ .
- 2) How much work from generator per revolution?
- 3) To make it twice as hard to turn, what do you do to  $R$ ?

