

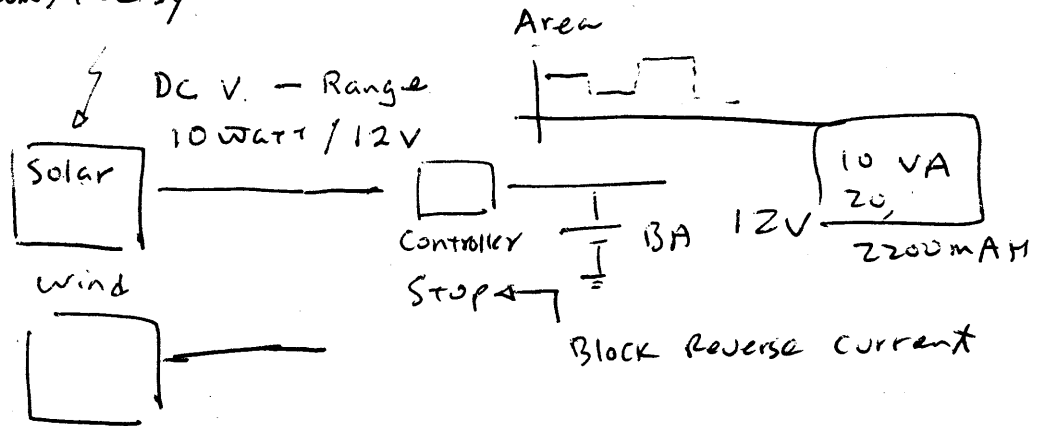
CPET/ELET 491

Pat's project

2012/9/11

(1)

www.pjrc.com/teensy



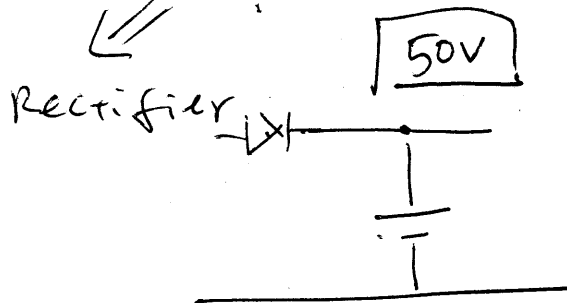
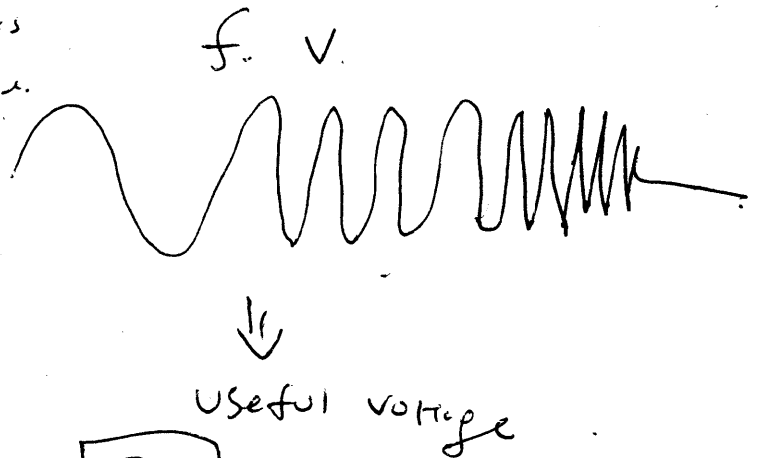
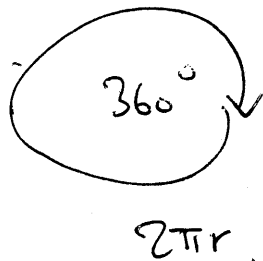
Speed M.P.H. Wind Speed

$$f = \frac{120 f_{rev}}{P_{ole}}$$

R.P.S - R.P.S  
R.P.M

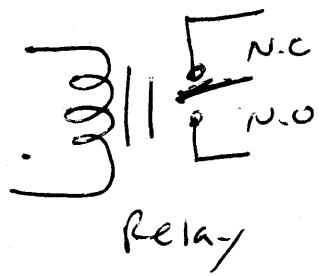
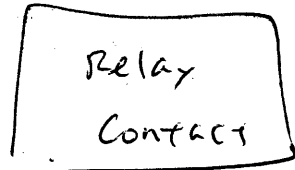
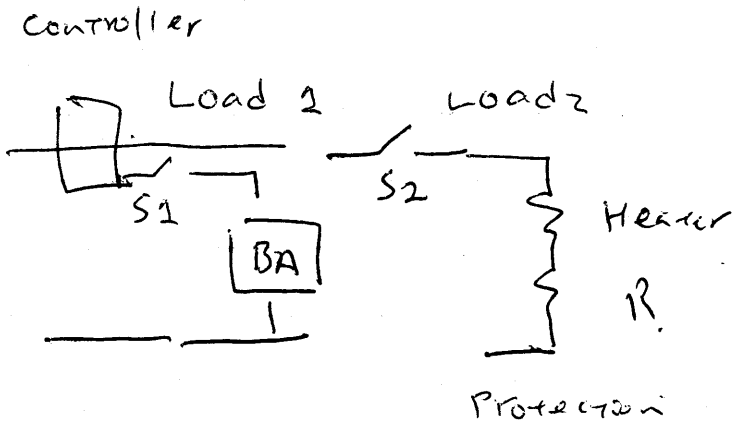
n = 1800 RPM - Slip 4 poles

n = 3600 RPM - 2 poles

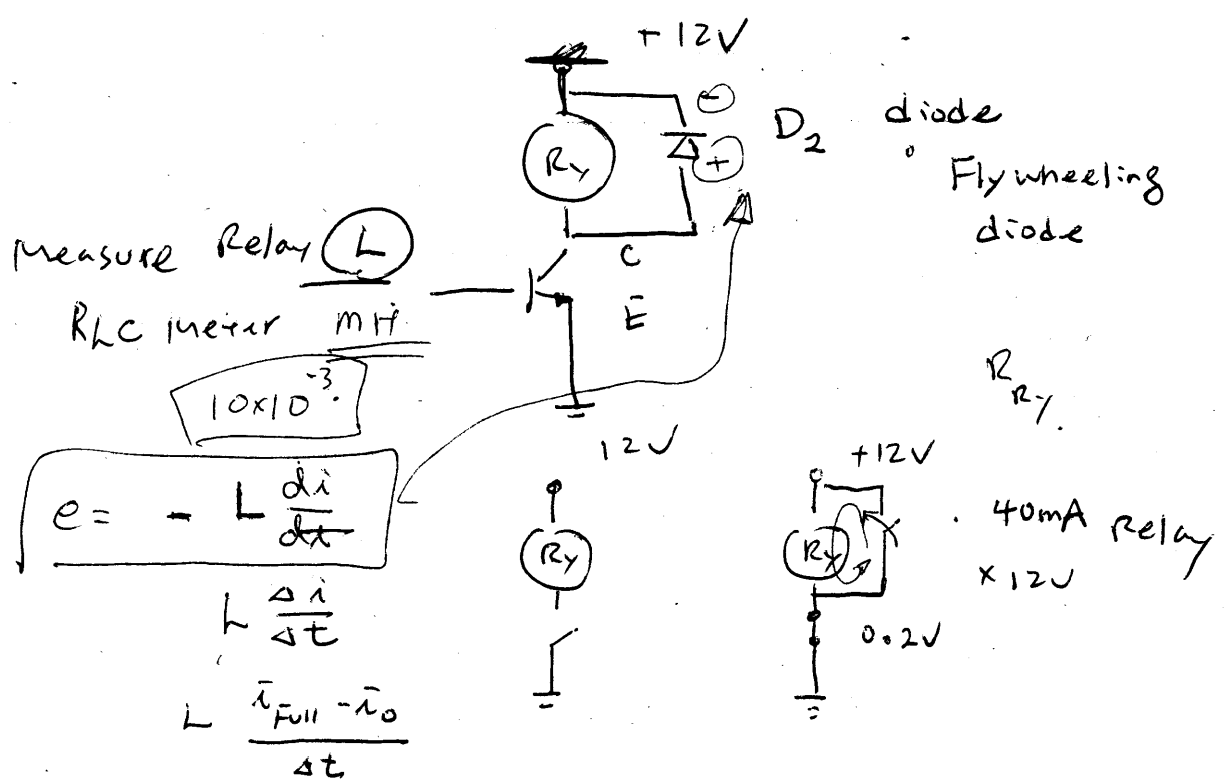


$$V = n \frac{d\phi}{dt}$$

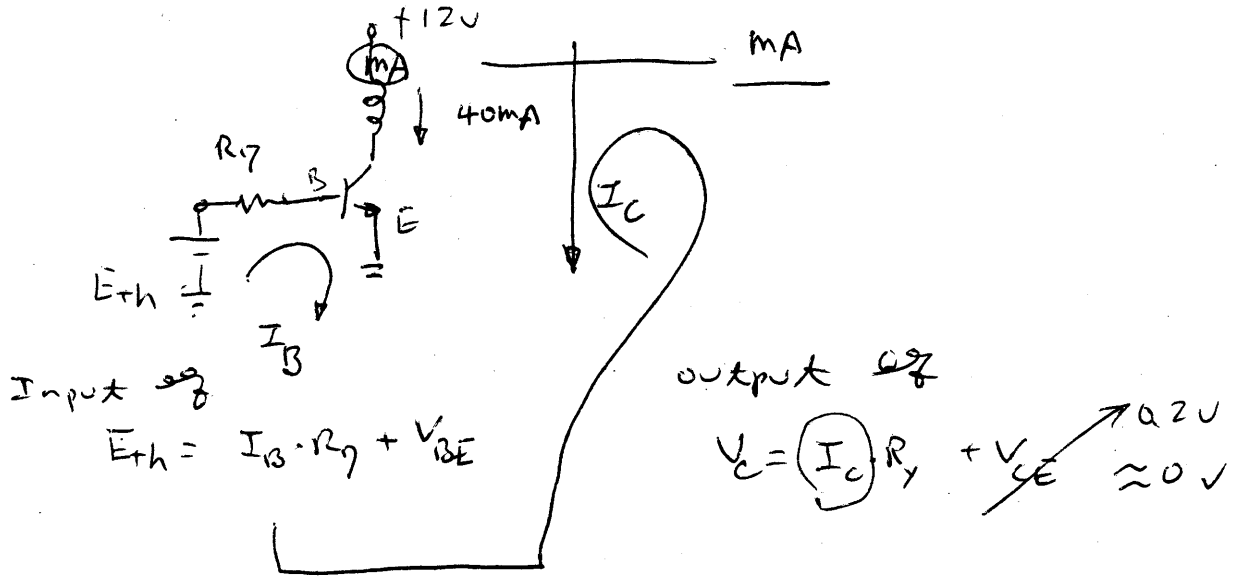
(2)



Hardware  
Circuit



$$40\text{mA} \times 12\text{V} = 480\text{mW} = 0.5\text{W}$$

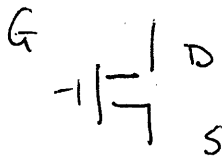


$$I_C = \beta \cdot I_B$$

hfe - h parameter

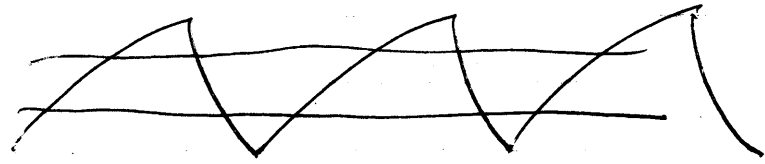
2N2222

3094



MOSFET

IRF540



Free running oscillator

