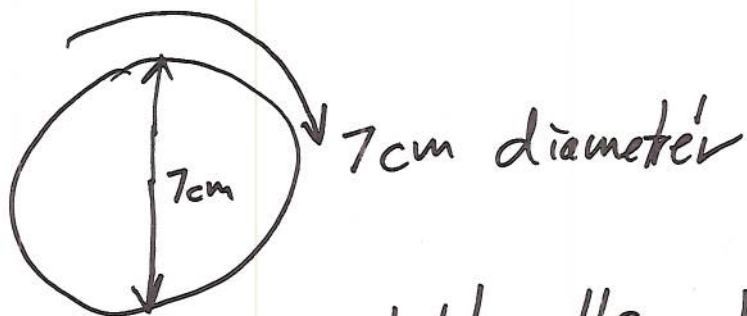


ECGR 4161 → 6/7/2011

①



Circumference =

$$\pi * d = 7\pi \\ = 21.99 \text{ cm}$$

Wheel rolls 1 rev,  
how far has it traveled

---

If I have a motor that turns  
3 revolutions per <sup>second</sup> ~~minute~~, The motor  
directly turns the wheel, how  
fast is vehicle traveling?

$$= 65.97 \text{ cm/second} \rightarrow 66 \text{ cm/sec}$$

---

You have a geared motor, 66/1

How many revolution of the motor  
= 1 meter <sub>of travel</sub> of the wheel?

ECGR 4161

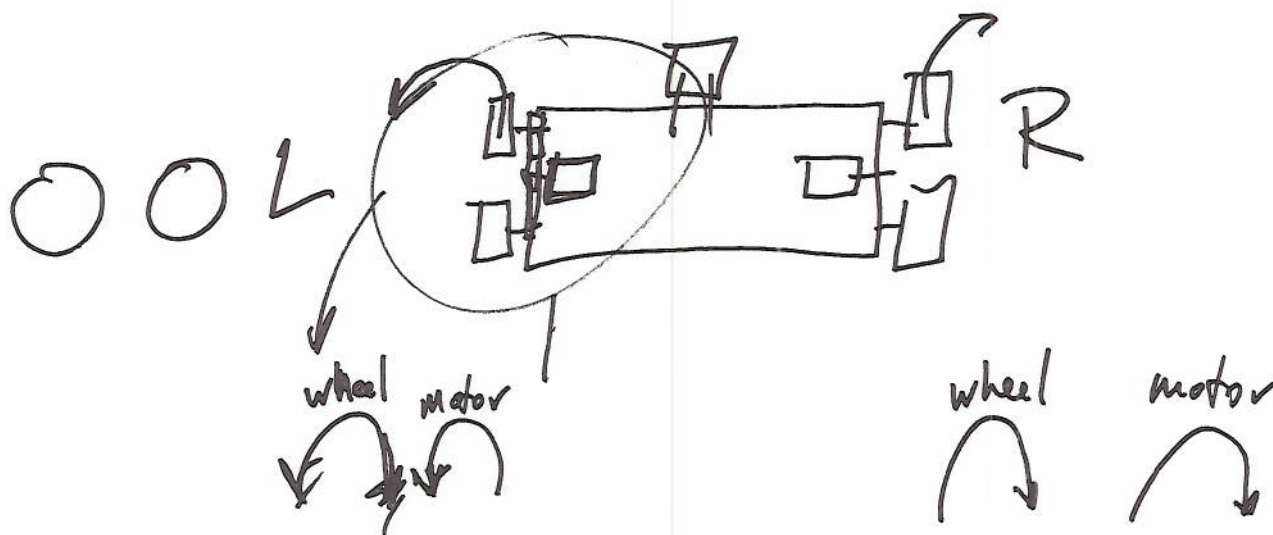
6/7/2011

(2)

1 motor rev =  $\frac{1}{66}$  of a wheel turn

$$= \frac{1}{66} \times \frac{22 \text{ cm}}{1} = \frac{1}{3} \text{ cm}$$

$$\text{Travel} = \frac{100 \text{ cm}}{\frac{1 \text{ cm}}{3}} = 300 \text{ revs}$$



	L	R
fwd straight		
back straight		
Turn L		
Turn R		