

















DC Machines	s Examples	A CONTRACTOR
<ul> <li>microwave fan</li> <li>hi-fi tape deck</li> <li>fridge</li> <li>mixer</li> <li>washing machine</li> <li>tumble dryer</li> <li>vacuum</li> <li>computers</li> <li>electric saw</li> <li>drill</li> </ul>	<ul> <li>screwdriver</li> <li>leaf blower</li> <li>toothbrush</li> <li>hair dryer</li> <li>razor</li> <li>CD player</li> <li>video player</li> <li>clocks</li> <li>pond pumps</li> <li>toys</li> </ul>	
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DC Machi	ne Equations	And a starter
$E_{\perp}$	$= K \cdot \mathbf{\Phi} \cdot \mathbf{\omega}_m$	
$T_{a}$	$= K \cdot \Phi \cdot I_A$	
$egin{array}{lll} E_A & ( ext{volt}) \ T_{dev} & ( ext{N.m}) \ \omega_m & ( ext{rad/s}) \ I_A & ( ext{A}) \end{array}$	is the back emf voltage is the machine torque is the armature shaft speed = $2\pi$ ( <i>rpm</i> is the machine armature current	1)/60
K Φ (Wb) Electrical & Computer Engineering	is the machine constant is the magnetic flux per pole King Abdulaziz University	Slide 181









