


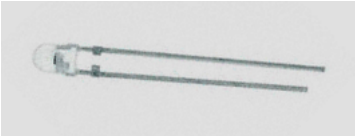
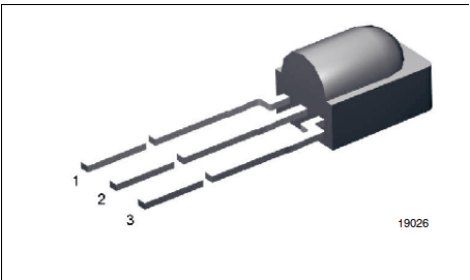








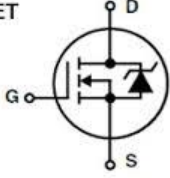

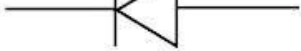



Arduino Accessory Kit for PY371

See <http://edf.bu.edu/PY371> for live version with links. Updated 2013-01-14.

Arduino Board		
USB Cable		Connect Arduino to your laptop computer
Small servomotor Sparkfun product page		Black - ground Red - +5V White - control (PWM) See Arduino Examples -> Servo
Light Sensor TEPT4400		Longer lead - GND Shorter lead - 10k resistor to +5V Analog input <i>Note: this has <u>longer</u> leads than the infrared LED</i>
Infrared Remote Receiver TSOP39338		1 - Output 2 - +5V 3 - GND

<p>Infrared LED</p> <p>OP165A</p>		<p>Long lead - positive Short lead - negative</p> <p>Need current-limit resistor</p> <p><i>Note: this has <u>shorter</u> leads than the light sensor</i></p>
<p>Thermistor (temperature sensor)</p> <p>NTCLE100E3103JB0</p>		<p>10k ohms at 25 deg C Non-polarized</p>
<p>Triple Axis Accelerometer</p> <p>uses MMA7361L chip</p>		<p>Sparkfun data page</p> <p>NOTE: Requires 3.3V power (you can get it from the Arduino board).</p>
<p>RGB Led - common cathode</p> <p>YSL-R596CR4G3B5 W-F12</p> <p>Use programmable ones instead?</p>		<p>Long lead is #2</p> <p>1 - R 2 - GND 3 - G 4 - B</p>
<p>Force Sensitive Resistor</p> <p>User Guide</p>		<p>Open circuit with no force Resistance drops with applied force</p>
<p>Serial DAC</p> <p>MCP4921</p>		<p>SPI Serial Interface</p>

<p>(1) Eastern Air Devices stepping motor</p>		
<p>(4) IRF520 N-Channel power MOSFET transistors</p>	 <p>IRF520 MOSFET</p> <p>D = DRAIN G = GATE S = SOURCE</p>  <p>G D S</p> <p>www.electroniccircuits.com</p>	
<p>(4) 1N4001 diodes</p>	 	
<p>(2) 20 ohm 10W power resistors</p>		<p>May look different, but much larger than a "normal" 1/4W resistor.</p>
<p>(1) power supply capable of delivering 12V at ~ 1A</p>		