

## JUNIOR SOLAR SPRINT MATERIALS FOR BUILDING

**Scavenge:** You or your students may be able to scavenge vehicle parts from old toys and small appliances. Any piece of equipment that contains something that spins (old floppy drives, tape recorders, etc.) may be a good source for gears or pulleys. Old toys that roll may provide a source of wheels and axles. A recycling center or scraps from a wood shop may provide you with chassis material.

**Purchase:** The materials displayed at the mentor workshops came from these sources:

1. **PITSCO** [www.shop-pitsco.com](http://www.shop-pitsco.com) 1-800-358-4983

Solar Panel (with #280 motor) DE21210---\$41.35 (Don't buy many—these can be shared!)

#280 Motors: DE54428---#1.95 each; 10 or more, \$1.80 each

Gear Font (16 toothed gears): DE25300---\$5.50

GT-RX Wheels: DE36688 (pkg of 100)---\$11.65

Rubber Bands for Wheels: DE56136 (pkg of 50)---\$2.15

Aluminum Axles: DE53626 (3 ft. length)---\$.80 each

Plastic Straws: DE33890 (pkg of 500)---\$13.75 (for axle bushings---1/8 inch diameter)

Axle Tubes: DE50071---(pkg of 10) ---\$1.95 (bushing for hanging axles instead of straws)

Nylon Spacers: DE54584 (pkg of 30) ---\$5.45 (can also be used as axle bushings)

2. **SCIENCE FIRST** [www.sciencefirst.com](http://www.sciencefirst.com) 1-800-875-3214

Fiberboard Wheels (2-3'4" diameter) #21334 (pkg of 20)---\$12.50-

Fiberboard Wheels (2" diameter) #21332 (pkg of 20)---not sure of cost

Wooden Axles (dowels) 3/16" X 16" 25/bundle #21320---\$2.70 per bundle

Plastic Pulleys: Check these out at the Science Source website---expensive! Compare with pulleys at **Kelvin** [www.kelvin.com](http://www.kelvin.com) 1-800-535-8469

Motor Pulleys #21422 (pkg of 10)---\$5.50 (worth it!)

Motor T-Bushings (fits bigger pulley on motor shaft---pkg of 20) ---not sure of cost

Motor Mounting Clips #21426 (pkg of 10)---not sure of cost---but worth it!

Spacers #21530 (pkg of 100)---\$9.95---**pricey! Can use straws as substitutes**

Reamer #21407 enlarges to 3/16" diameter but pricey at \$9.95; 3/16" drill bit will work

In addition, I have purchased jumpers and small battery packs (for two AA batteries) at **Radio Shack** and foam core at **Staples**. The smaller #260 motors (with wire leads) can be purchased from **Solar Made** for around \$1.75 each.

<http://www.solarmade.com/store/category/junior-solar-sprint>

