

Design Notebook

The following pages are taken from team Design Notebooks from past Junior Solar Sprint competitions that the officials picked out to use as examples. Note that the layout and specific content showcased are not official rules, but rather ideas and suggestions for creating the notebooks that the judges from that particular year liked.

Please refer to the official rules for what is required in each section.

Specifications and Components

Specifications of final vehicle (size, weight, wheel size, gear ratio, etc.)

The cars weight for the car is 250grams

The length of the car is 30cm

The wheel size is 4cm and $3\frac{1}{2}$ cm

Gear with 20-tooth

$\frac{1}{8}$ " bore

Specifications
must include:
Car dimensions
Car weight
wheel size
gear ratio

Component list--all parts purchased for your vehicle

- Ping Pong ball
- Paper cup

Weight: 164 g

Wheel Size:

Back Wheel - Diameter = 4 cm

Front Wheel - Diameter = 3.5 cm

Gear Ratio:



Small to big

Small Gear: Diameter: 1.5 cm

Teeth = 21

Large Gear: Diameter: 3 cm

Teeth: 40

Teeth Ratio - 21:40

Diameter Ratio - 1:2

Components

Purchased Items	Supplier	Price per Car	How we calculated the cost
solar made junior solar sprint kit (panel, motor, alligator clips, motor mount)	solarmade.com	23.99	23.99
Solar made wheels	solarmade.com	2.00	3.99/2
Pitsco GT-RX Wheels	Pitsco	0.23	11.65/100*2
Pitsco gears	Pitsco	0.69	5.50/8
nylon spacers	Pitsco	0.73	5.45/30*1
duct tape	Amazon	0.01	33.99/6/54/36*1
WAYLLSHINE 8PCS ON/OFF Switch With Cover 2x 1.5V			
AA Battery Holder Battery Case Battery Box with 5.5" Black Red Wire Leads	Wayllshine	1.14	9.09/8
Surebonder CS15 CoolShot Low Temp Glue Sticks, 4", 15 per pack		0.12	1.77/15
Zinc screw eyes		0.12	5.98/100*2
			\$29.02

Components:
List all materials used including recycled/reused materials

Reused Items

- 2-liter bottle
- scrap pieces of balsa wood
- green card stock

Components

All are from PITSCO education

1 Ray catcher solar panel	\$38.25
1 3VDC motor	\$1.95
2 GT-RX Wheels	\$0.10
1 Gatorade Bottle	\$0.00
2 balsa 26.5cm x 10cm x .5cm	\$0.70
3.5cm x 3.5cm x 4.5cm pine wood block	\$0.00
3 50 tooth plastic gears	\$1.03
2 wide rubberbands	\$1.07
2 1/8 diameter 12 cm long steel axles	\$0.50
6 nylon spacers	\$1.09
6 glue sticks	\$0.32
2 AA battery holder	\$0.27
total	\$76.77

Check your
addition!