

# COMING TO CRUZIN PORT 2016

## Valve Cover/Rocker Cover Racing

(Think Pinewood Derby)

Hosted by High Point Cruisers Car Club

[www.highpointcruisersclub.com](http://www.highpointcruisersclub.com)

### CLASSES

Novice up to 12 yrs. of age

Sportsman 13 – 17 yrs. of age

Unlimited 18- 99 yrs. of age

### FREE TO ALL AGES

Certificates will be awarded to 1st  
through 4<sup>th</sup> place.

### IMPORTANT DATES

**May 3<sup>rd</sup>**

Distribute rules and answer questions

**June 7<sup>th</sup>**

Demonstrate the track and give trial runs

**August 2<sup>nd</sup>**

Race day, run races for the 3 divisions



On race day, racers will be placed in a bracket playoff format, and then the race is on! The starting gate drops and gravity takes over, sending two racers sprinting down a specially built track to see who is the fastest to the finish line.

## **WHAT IS VALVE COVER/ROCKER COVER RACING?**

Starting with a valve cover from an automotive engine, a “racer” is created by adding a chassis, wheels and weights. Racers can be engineered in any way you want, so long as they follow the official rules (see below), and can take on any personality or character that you see fit.

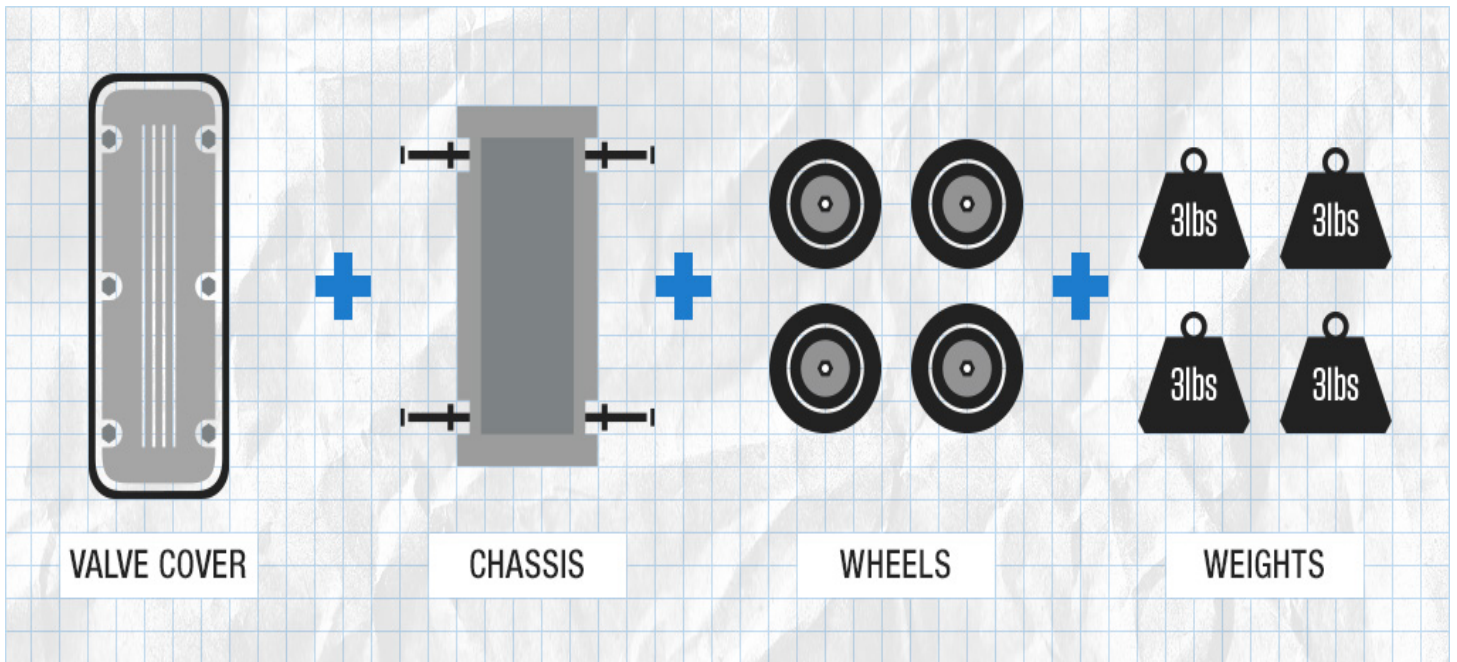
Valve Cover Racing is a growing “sport” right now. If you Google “Valve Cover Racing”, many links will be discovered. Some links tell about events at different venues or rules in different countries while others give examples of successful racers.

Perhaps the most important aspect of a Valve Cover Racer is that it rolls in a straight line going down the incline and still be able to stay straight if the track has a transition from incline to level for a run-off area. The British have discovered that placing springs between the valve cover and axles can help alleviate shear at the transitions, but simple good alignment will work as well.

The wheels and bearings are also very important. Does a person wish to mill his or her own wheels? How about roller skate wheels or roller blade wheels? What about bicycle wheel bearings inside a couple of empty wire spools? The important thing is that a person finds what he or she is comfortable with and which they are certain they can adjust to get the racer traveling in a straight line – and remember, **NO METALLIC SURFACE CAN COME IN CONTACT WITH THE TRACK.**

It is also important to think about where you want to place the wheels/bearings in relation to the valve cover. Placing them too low can cause your valve cover to have a high center of gravity and become unstable and placing them too high into the valve cover can cause the racer to “bottom out” if there is a transition area.

The valve cover itself is left up to personal opinion. Just remember that it has to fit on the racetrack between the track’s terminal end and the starting gate and your racer’s overall weight cannot be more than 10 pounds as measured by the official scales at the beginning of the event.



## Official Rules For Building Your Racer

Each valve cover racer must:

- Be made from one automotive engine valve cover;
- Have four (4) wheels, none of which extend beyond the front of the valve cover;
- Wheels no larger than six (6) inches in diameter
- Be propelled by gravity only;
- Not contain any moving weights;
- Be no longer than 30 inches, measured end to end;
- Be no wider than 12 inches; and
- Weigh no more than 12 pounds, ready to race

Building a valve cover racer can be as simple or complex as you wish to make it. We've seen everything from a basic bolt-together racer to one so detailed that it even had working headlights. The simplest design uses a valve cover, plywood base and rolling gears from a skateboard. For some directions and ideas on how to build your racer, do an Internet search on "Valve Cover racing". Also, YouTube has step-by-step videos on the process of building a racer. Don't be afraid to put your personality into the design and paint job.