



Mastercam
Innovator of the Future
2009-2010 Competition
Specifications: Gear Shift Lever with Knob

Mastercam IOF 2009-2010 challenges students to design and machine a NASCAR style gear shift lever and knob for a team of celebrity judges from Stewart-Haas Racing: Tony Stewart, owner and driver of #14; Ryan Newman, driver of #39; and CNC Shop Manager, Brad Harris.

Dimensions are given for the mounting surfaces and location range of knob. All other details of the lever are up to the creativity of the competitor

General

- Must adhere to all dimensions in the drawings + - 0.005"
- Knob can be any shape.
- Knob must be completely within the 3.5" x 4.0" x 4.75" box in all three dimensions. See drawings for exact location of box.
- Shifter must withhold a force of 110 lbs parallel and perpendicular to the car centerline.
- Any material can be used as long as it meets the rest of the requirements.

Judging

High scores are given for parts that meet the following criteria:

- Originality – Part should exhibit both mechanical and aesthetic creativity.
- Exceptional Style – Design should appeal to machinists, race car drivers and enthusiasts.
- Quality of Workmanship – Remember who will be judging your part!
- Weight Consideration – Lighter parts will receive consideration over heavier ones.



