

Name/Hour: \_\_\_\_\_



## *BattleBot Design Brief*

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### **Introduction**

Robots are everywhere. They can be found in our homes (vacuums, pets, RC toys), in industrial factories, and many other places in society (bomb defusing bots, gas stations, pop machines, manufacturing). All of these things are considered robots, at least by some people. The most precise definition states that robots have a reprogrammable brain (a computer) that moves a body. We do not have the capability to program our robots here at EVHS (just yet anyway), so after we have constructed our robots, we will be its brain.

### **Design Brief**

Design a robotic vehicle using a variety of mechanical systems, like simple machines and gear boxes that is manipulated by a controller. The robotic vehicle will compete against other robots in a “wrestling” ring, of sorts. You will be awarded points for pushing the other robot out of the ring and popping the other robot’s balloons.

### **Design Parameters**

1. You may ONLY use the following materials:

Axel Dowel (2), Balloon (6), Cat 5 Cable/Plug (1), Connect Strip (2), Gear Set (2), Hardboard (1), Motor (2), Motor Adapter (2), Motor Mount (2), Perpendicular Block (4), Railroad Board (1), Slide Stop (1), Rubber Band (4), Wheel (4)

2. Shop Supplies (Such as glue, tape, solder, etc.) will be provided.

3. Final dimensions must not exceed 8” Tall x 8” Wide x 16” Long.

4. 5 thumbnail sketches, one preliminary/annotated sketch, and one working drawing must be submitted to the instructor for approval before fabrication begins. The working drawing must also be done precisely using ruler/ straight edge, compass, protractor, t-square, etc., using either isometric or orthographic techniques.

5. Quality construction= Quality performance