

ME/MET CAPSTONE BATTLE-BOTS ARENA OBSTACLES

Spirit of the Competition:

The MIE Capstone Battle-bots competition is intended to showcase student design innovation in a challenging, fun and entertaining event. The objective during combat is to disable the opponents Battle-bot while surviving to fight another round. Student groups will create original designs consisting of unique primary structure and weaponry, with either new or re-purposed motors, batteries and drive system components.

In support of this competition, active obstacles are to be designed which will present existencethreatening hazards to the battle bot competitors. The obstacle may be encountered by participating bots as they flee opponents, if they venture too close due to operator error, or if they are forced into the hazard by another bot.

Project Bounds

- The following limitations will be enforced:
 - No Flames or flaming liquids,
 - No chemical weapons such as strong acids or bases,
 - o No untethered projectiles,
 - No explosives or explosively-driven weaponry (e.g. no cartridges)
 - No blades, spears, or edged weapons.
- The minimum radius of any exposed edge including frame elements, weapons, etc. is 1/8 inch.
- Cost must be under \$1000. This cost is defined as actual expenses, and will be determined from purchasing receipts that must be retained and submitted as part of the design report.
- The use of re-purposed components or equipment is encouraged. Scrap materials or used components must be listed in the design report parts list and actual costs must be accounted for even if cost is \$0.
- The obstacle will be stationary during the competition: Bots interact with obstacles only when they are driven or pushed into said device.
- Maximum size: Device must fit within a 4' cube.
- Each obstacle must have the ability to be safely operated. It must contain a remotely-operated master OFF switch. When activated, all power to all power systems must be disconnected. This switch should ideally be controlled via a channel on the remote control unit.

Examples

• <u>Ref: Battlebots television series for ideas.</u>