

## Challenge

### Mine Removal Playing Field Guide

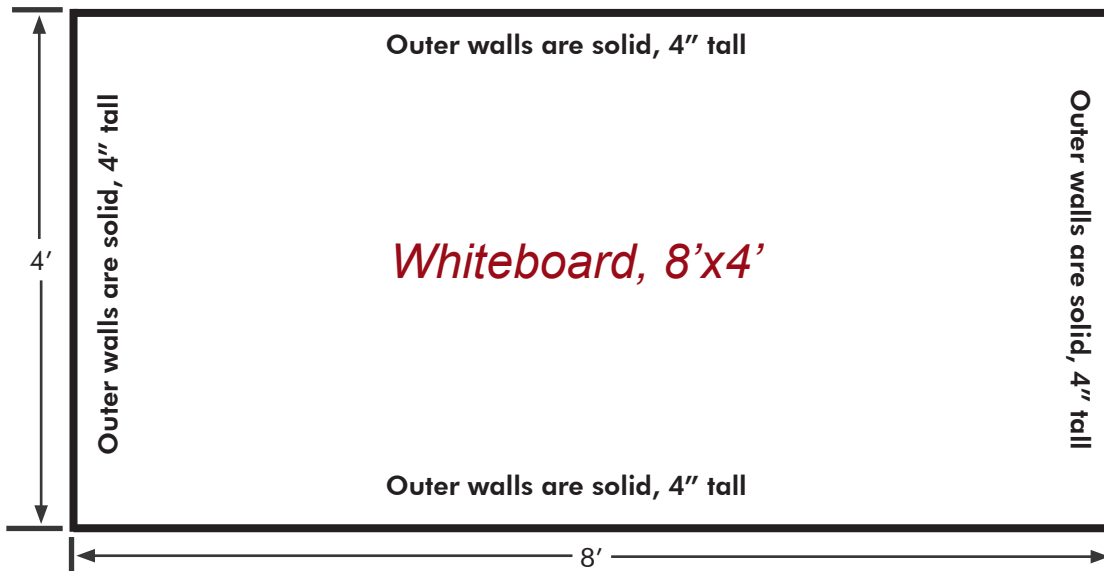
*This guide will assist you in the construction of the playing field for the Mine Removal Challenge. Each field will vary slightly, and you should feel free to make substitutions for materials as necessary, or implement "house rules" when needed.*

#### Board

The basic **board** is an 8' by 4' solid wooden frame with 4" high walls. The central playing area is covered by a piece of tile board (whiteboard) cut to fit. The board can be white, or grey as shown.

Constructing the board will require:

- **One 8'x4' sheet of tile board** (whiteboard material) with grey or white surface
- **24'** (plus a little, for leeway in cutting) of **2"x4" dimensioned lumber** for walls
- Additional structure, stands, or supports as necessary



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### Mine Removal Playing Field Guide *(cont.)*

#### Board markings

The only markings on the board are lines of electrical tape used to show the boundaries of the robot starting area. The outer boundaries of the box should be done in black tape, while any inner decorative markings can be done in red.

Adding the tape markings will require:

- Scissors or other tape-cutting tool
- Black electrical tape
- Red electrical tape (optional)

Outer walls are solid, 4" tall



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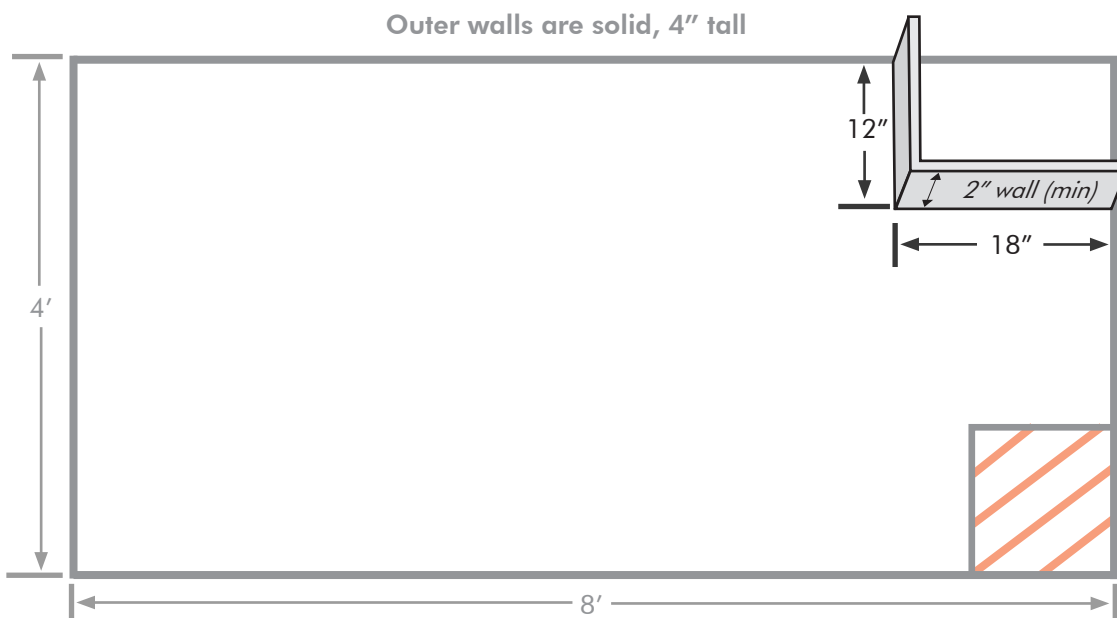
### Mine Removal Playing Field Guide (cont.)

#### Scoring bin

The scoring bin can be constructed out of spare Vex Starter Kit metal parts, lumber, or simply be a small storage bin or cardboard carton. Dimensions are approximate, the goal size is quite flexible.

Adding the Scoring bin (Mine Disposal Bin) will require:

- Spare Vex kit metal OR
- Extra lumber (2" high) OR
- Small plastic storage bin OR
- Rigid corrugated cardboard box OR
- Creativity and Resourcefulness



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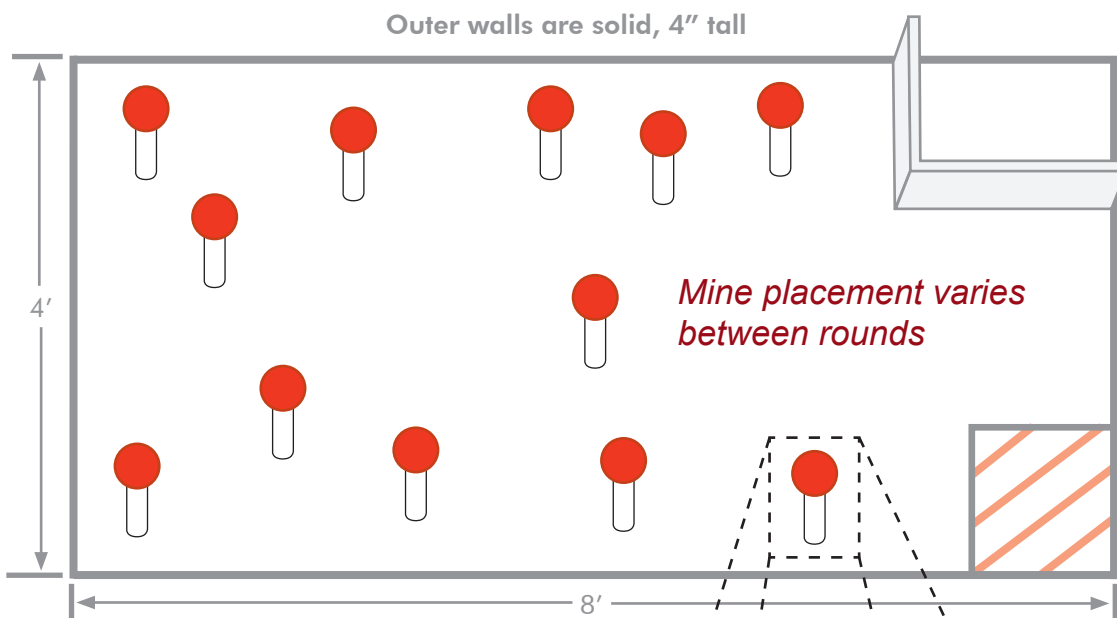
### Mine Removal Playing Field Guide *(cont.)*

#### Mines

The game centers around the **mines**. A mine consists of a plastic ball resting atop a pedestal (cardboard tube or PVC pipe). The mine pedestals are exactly the size of a standard toilet paper tube, but PVC tubing is more durable than cardboard for long-term use. The plastic balls are standard 3" hollow plastic balls, of the sort used in "ball pit" playpens. 12 such mines are placed at different locations around the board. Their exact placement may change between rounds.

The 12 mines on the board will collectively require:

- 12 Cardboard or PVC tubes (4.5" tall standing)
- 12 Plastic Balls (3" diameter)



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## Mine Removal Playing Field Guide *(cont.)*

### Summary

There are four parts to the Mine Removal Challenge Field:

- Main board (including walls)
- Field markings (starting area)
- Scoring bin
- Mines

Complete list of materials:

- **One 8'x4' sheet of tile board** (whiteboard material) with grey or white surface
- **24'** (plus a little, for leeway in cutting) of **2"x4" dimensional lumber** for walls
- Additional structure, stands, or supports as necessary
- **Scissors** or other tape-cutting tool
- **Black** electrical tape
- **Red** electrical tape (optional)
- **Bin** or parts to build bin (metal, wood, plastic box, or similar...)
- 12 Cardboard or PVC **tubes** (4.5" tall standing)
- 12 Plastic **balls** (3" diameter)

