

## Engineering And Robotics Learned Young $\Leftrightarrow$ EARLY

## Fall 2009 Robotics Competition Mission Field Details

The Fall 2009 EARLY Robotics Competition mission field, The United States of America, is a $4^{\prime} \times 4^{\prime}$ field with a $2^{\prime \prime} \times 4^{\prime \prime}$ border with various terrain features. The following information is provided for constructing the mission field.

## United States of America



Fall 2009 EARLY Mission Field


Fall 2009 Mission Model Positions

New England Colonies $25^{\prime \prime}$ top / $27 \frac{1}{2}$ bottom $\times 15^{\prime \prime}$ tall includes Boston

| Boston |
| :---: |
| $10{ }^{\prime \prime}$ top $/ 8^{\prime \prime}$ bottom |
| $\times 15^{\prime \prime}$ tall |
| $\frac{3}{4}$ " plywood |

Middle Colonies 27年" top / 30" bottom $\times 15^{\prime \prime}$ tall includes Philadelphia

| Beach |
| :---: |
| 2 strips of |
| $\frac{3}{4}{ }^{\prime \prime} \times \frac{1}{4}$ " molding |

Atlantic Ocean
5" top / 11" bottom $\times 45^{\prime \prime}$ tall

United States of America


View from the Home


View from the SOUTHEAST


View from the Northeast


View from the Northwest


View from the SOUTHERN COLONIES


View from the Atlantic Ocean


View from the New England Colonies


View from the Appalachian Mountains

- The bottom of the mission field is a 4' $\times 4$ ' sheet of $\frac{1}{2}$ " plywood.
- The outer boundary of the mission field is made of $2 \times 4$ boards (actual dimension of $1 \frac{1}{2}$ " $\times 3 \frac{1}{2}$ ") and is black. The side of the $2 \times 4$ board that is $1 \frac{1}{2}$ " is attached to the plywood with glue, nails, or screws.
- Home is a $15^{\prime \prime}$ by $15^{\prime \prime}$ flat area and is red.
- Charleston is a trapezoidal flat area and is light blue. The border of the trapezoid adjacent to the MIDDLE Colonies is $11^{\prime \prime}$, the border adjacent to the field boundary is $9^{\prime \prime}$, and the west border is $15^{\prime \prime}$.
- The remainder of the SOUTHERN COLONIES is a $10^{\prime \prime}$ by $15^{\prime \prime}$ flat area and is blue.
- Philadelphia is a trapezoidal flat area and is yellow. The border of the trapezoid adjacent to the New ENGLAND COLONIES is $9 \frac{1}{2}{ }^{\prime \prime}$, the border adjacent to the SOUTHERN COLONIES is 14 ", and the east border is $15 "$.
- The remainder of the MIDDLE COLONIES is a trapezoidal flat area and is white. The border of the trapezoid adjacent to the New England Colonies is $18{ }^{\prime \prime}$, the border adjacent to the Southern Colonies is $16^{\prime \prime}$, and the border adjacent to PhIladelphia is 15 ".
- Boston is a trapezoidal piece of $\frac{3}{4}$ " plywood and is red. The border of the trapezoid adjacent to the field boundary is $10^{\prime \prime}$, the border adjacent to the MIDDLE ColoniEs is 8 ", and the west border is $15^{\prime \prime}$. It is fastened to the bottom of the mission field with glue, nails, or screws.
- The remainder of the New England Colonies is a trapezoidal flat area and is red. The border of the trapezoid adjacent to the field boundary is $15 "$ ", the border adjacent to the MIDDLE ColoNIEs is $19 \frac{1}{2}{ }^{\prime \prime}$, and the border adjacent to Boston is 15".
- The ApPalachian Mountains is a trapezoidal area and is green. The north border adjacent to the field boundary of the trapezoid is $15^{\prime \prime}$, the border adjacent to HOME is $6^{\prime \prime}$, and the west border adjacent to the field boundary is $30^{\prime \prime}$. The APPALACHIAN Mountains area includes four strips of $\frac{3^{\prime \prime}}{4} \times \frac{1}{4}$ " screen molding 30" long; the strips are equally spaced between the border and the intersection of HOME, PhILADELPHIA, and the APPaLACHIAN MOUNTAINs. The molding is fastened to the mission field with glue, nails, or screws; the screen molding can be purchased at Home Depot (part \# 927-139).
- The ATLANTIC OCEAN is a trapezoidal area and is navy blue. The north border of the trapezoid is 5 ", the south border is $11^{\prime \prime}$ and the east border is $45^{\prime \prime}$. The ATLANTIC OCEAN includes the BEACH which is two strips of $\frac{3}{4}$ " $\times \frac{1}{4}$ " screen molding approximately $45 \frac{1}{4}$ " long; the strips are placed side-by-side on the east border of the ATLANTIC OCEAN. The molding is fastened to the mission field with glue, nails, or screws; the screen molding can be purchased at Home Depot (part \# 927-139).
- The light blue color can be made by mixing 1 part blue paint with 1 part white paint.
- The blue color can be made by mixing 10 parts navy blue paint with 1 part white paint.

Please contact Mission. Control@EARLYrobotics.org with any questions or comments.
Thank you for maintaining the spirit of the game!

