



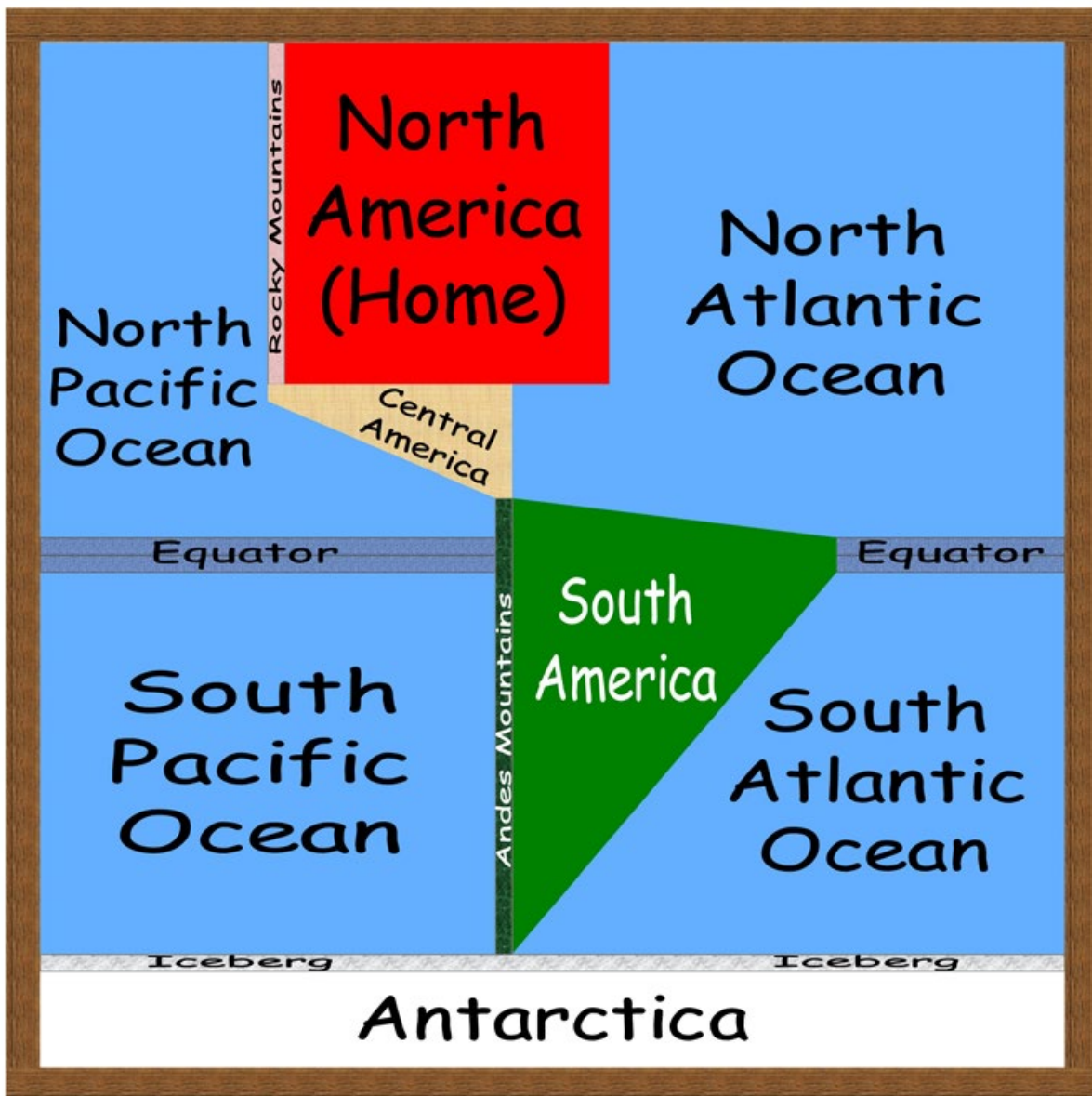
# Engineering And Robotics Learned Young

*Engaging Students in Engineering before Stereotypes*

## Western Hemisphere Mission Field Details

The EARLY Western Hemisphere Robotics Competition Mission Field is a 4' x 4' field with a 2" x 4" border with various terrain features. The following information is provided for constructing the mission field.

### Western Hemisphere



Western Hemisphere Mission Field

**Field**  
 48" x 48"  
 $\frac{1}{2}$ " Plywood

**Field Perimeter**  
 2" x 4" Boards

**North America (Home)**  
 15" x 15"  
 10" from Left Border

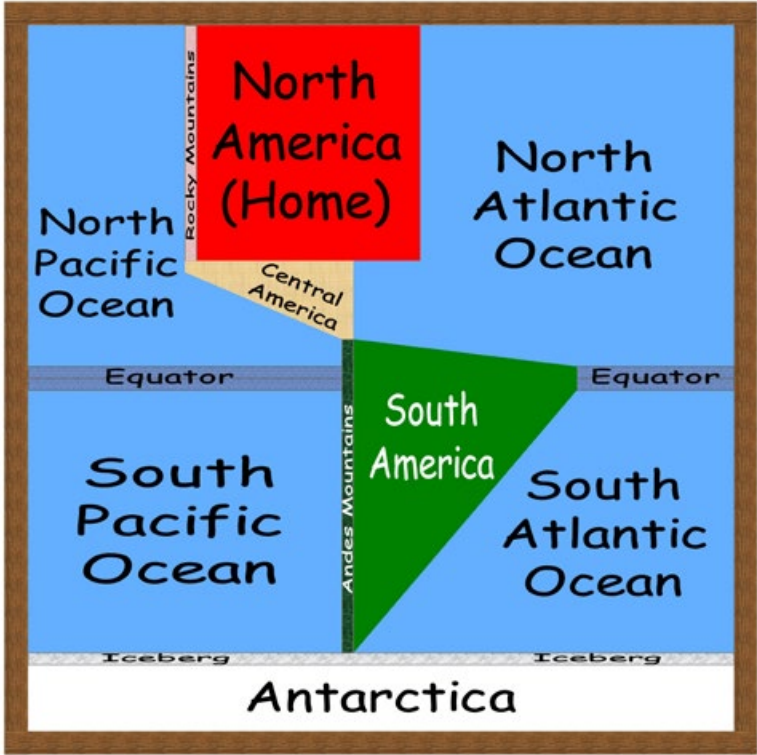
**Rocky Mountains**  
 $\frac{3}{4}$ " x  $\frac{1}{4}$ " Molding

**Central America**  
 $10\frac{3}{4}$ " x 5"  
 $\frac{3}{4}$ " Plywood

**South America**  
 15" x 20"

**Andes Mountains**  
 $\frac{3}{4}$ " x  $\frac{1}{4}$ " Molding

**Antarctica**  
 45" x 5"



**North Pacific Ocean**  
 20" x  $21\frac{3}{4}$ "

**North Atlantic Ocean**  
 25" x  $21\frac{3}{4}$ "

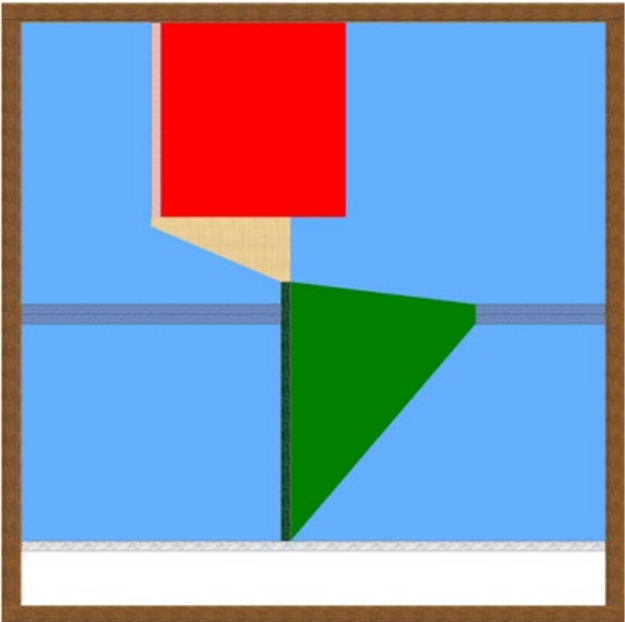
**Equator**  
 2 strips  
 $\frac{3}{4}$ " x  $\frac{1}{4}$ " Molding  
 Centered between  
 Top & Bottom Borders

**South Pacific Ocean**  
 20" x  $16\frac{3}{4}$ "

**South Atlantic Ocean**  
 25" x  $16\frac{3}{4}$ "

**Iceberg**  
 $\frac{3}{4}$ " x  $\frac{1}{4}$ " Molding

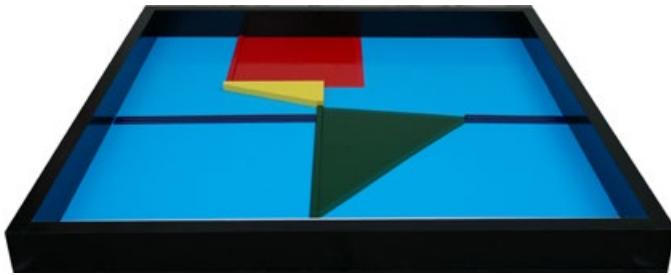
Western Hemisphere Mission Field Dimensions



Western Hemisphere Mission Field Rendering



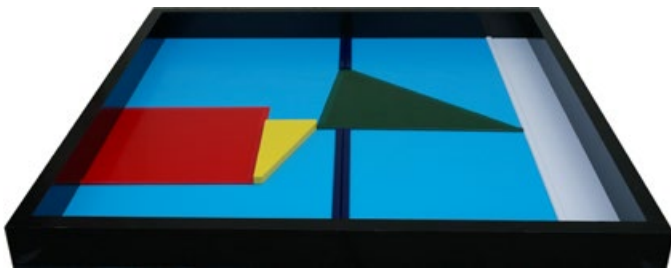
Western Hemisphere Mission Field Image



View from ANTARCTICA



View from SOUTH PACIFIC OCEAN



View from PACIFIC EQUATOR



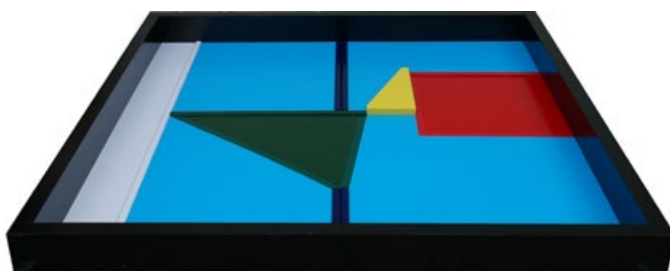
View from NORTH PACIFIC OCEAN



View from NORTH AMERICA (HOME)



View from NORTH ATLANTIC OCEAN

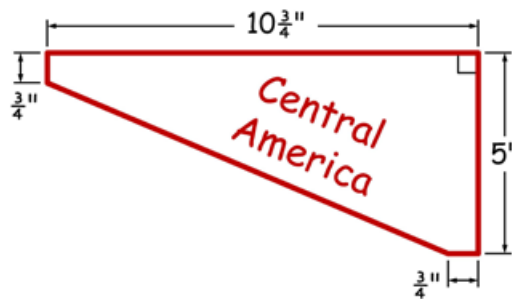


View from ATLANTIC EQUATOR

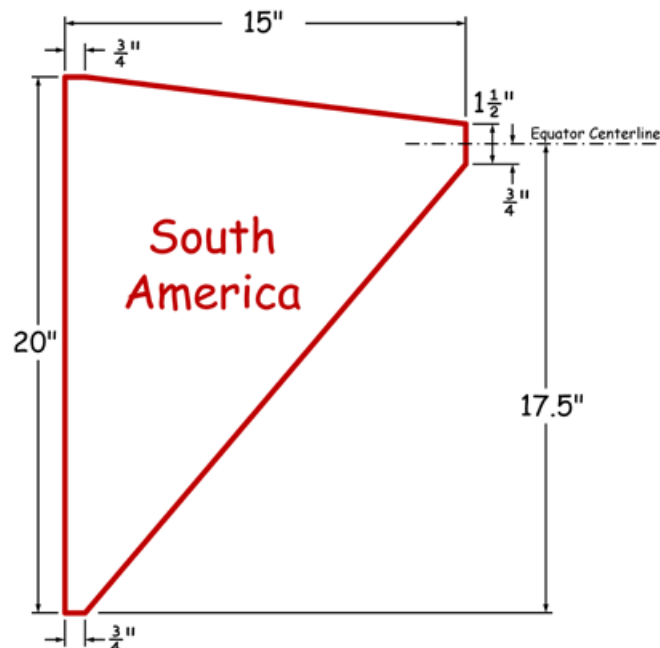


View from SOUTH ATLANTIC OCEAN

- The bottom of the mission field is a 4' x 4' sheet of  $\frac{1}{2}$ " plywood.
- The outer boundary of the mission field, also referred to as the border and field perimeter, is made of 2x4 boards (actual dimension of  $1\frac{1}{2}$ " x  $3\frac{1}{2}$ " ) and is **black**. The side of the 2x4 board that is  $1\frac{1}{2}$ " is attached to the plywood with glue, nails, or screws.
- **HOME**, which is also **NORTH AMERICA**, is a 15" by 15" area and is **red**. **HOME** is 10" from the left border and is adjacent to the top border. **HOME** includes the **ROCKY MOUNTAINS** that define the left border of **HOME** and is made from  $\frac{3}{4}$ " x  $\frac{1}{4}$ " screen molding; 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).
- **CENTRAL AMERICA** is a 10.75" by 5" right triangular piece of  $\frac{3}{4}$ " plywood with  $\frac{3}{4}$ " flats on the two acute angles and is **yellow**. **CENTRAL AMERICA** is adjacent to **HOME** and is aligned with the left border of **HOME**. The plywood is fastened to the mission field with glue, nails, or screws.



- **SOUTH AMERICA** is a 15" by 20" triangular area and is **green**. **SOUTH AMERICA** is 20" from the left border and is adjacent to **CENTRAL AMERICA** and **ANTARCTICA**. The angles adjacent to **CENTRAL AMERICA** and **ANTARCTICA** have  $\frac{3}{4}$ " flats and the angle adjacent to the **ATLANTIC EQUATOR** has a  $1\frac{1}{2}$ " flat. **CENTRAL AMERICA** includes the **ANDES MOUNTAINS** that define the left border of **SOUTH AMERICA** and is made from  $\frac{3}{4}$ " x  $\frac{1}{4}$ " screen molding; 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).



- **ANTARCTICA** is a 45" by 5" area and is **white**. **ANTARCTICA** is adjacent to the left, right, and bottom borders. **ANTARCTICA** includes the **ICEBERG** that defines the upper border of **ANTARCTICA** and is made from  $\frac{3}{4}$ " x  $\frac{1}{4}$ " screen molding; 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 **NORTH PACIFIC OCEAN** is a 20" by 21.75" flat area and is **light blue**. The **NORTH PACIFIC OCEAN** is adjacent to the left and top borders. The **NORTH PACIFIC OCEAN** does not include **NORTH AMERICA**, **CENTRAL AMERICA**, nor **SOUTH AMERICA**.
- The **NORTH ATLANTIC OCEAN** is a 25" by 21.75" flat area and is **light blue**. The **NORTH ATLANTIC OCEAN** is adjacent to the upper and right mission field boundaries. The **NORTH ATLANTIC OCEAN** does not include **NORTH AMERICA**, **CENTRAL AMERICA**, nor **SOUTH AMERICA**.
- The **SOUTH PACIFIC OCEAN** is a 20" by 16.75" flat area and is **light blue**. The **SOUTH PACIFIC OCEAN** is adjacent to the left border and **ANTARCTICA**. The **SOUTH PACIFIC OCEAN** does not include **SOUTH AMERICA**.
- The **SOUTH ATLANTIC OCEAN** is a 25" by 16.75" flat area and is **light blue**. The **SOUTH ATLANTIC OCEAN** is adjacent to the right border and **ANTARCTICA**. The **SOUTH ATLANTIC OCEAN** does not include **SOUTH AMERICA**.
- The **EQUATOR**, including the **PACIFIC EQUATOR** and the **ATLANTIC EQUATOR**, is made from two strips of  $\frac{3}{4}$ " x  $\frac{1}{4}$ " screen molding centered between the upper and lower mission field boundaries and is **navy blue**. The **PACIFIC EQUATOR** is comprised of two strips of molding 20" long. The **ATLANTIC EQUATOR** is comprised of two strips of molding 10" long. 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 navy blue paint with 1 part white paint.

Please contact [Mission.Control@EARLYrobotics.org](mailto:Mission.Control@EARLYrobotics.org) with any questions or comments.

Thank you for maintaining the spirit of the game!