RESOURCES

<table>
<thead>
<tr>
<th>Resource</th>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4 ft. x 8 ft. X/2&quot; Plywood</td>
<td>1 Sheet</td>
</tr>
<tr>
<td>2</td>
<td>24d Lumber</td>
<td>30 Inches</td>
</tr>
<tr>
<td>3</td>
<td>4&quot; Adhesive Back Hook Veltro</td>
<td>15 Feet</td>
</tr>
<tr>
<td>4</td>
<td>Wood Glue</td>
<td>As Needed</td>
</tr>
<tr>
<td>5</td>
<td>Staples</td>
<td>As Needed</td>
</tr>
</tbody>
</table>

PARTS LIST

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>TE-12001-01</td>
<td>Barrier, Base</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>TE-12001-02</td>
<td>2x6, Barrier</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>TE-12001-03</td>
<td>Plywood Top, Barrier</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>TE-12001-04</td>
<td>Plywood Side, Barrier</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>TE-12001-05</td>
<td>3&quot; Hook Velcro, Adhesive Backed</td>
</tr>
</tbody>
</table>

DRAWN BY: [Signature] 12/16/2011
CHECKED: [Signature]

UNLESS OTHERWISE SPECIFIED TOLERANCES: (INCHES)
- FRAC: +/- 1/32
- .00 +/- .01
- .000 +/- .005
- ANGULAR +/- .25 Deg.

FIRST
200 Bedford Street, Manchester, NH 03101
(603) 666-3906 -- FAX (603) 666-3907

TITLE
Barrier, Team Version

SIZE | SHEET 1 OF 6
TE-12001
NOTE:
1. Attach items 2, 3 and 4 using staples and glue
2. You may add more of item 2, the 2x6 barrier if you will be hitting it alot with robots
NOTE:
1.) Attach item 1 using wood screws
2.) Attach adhesive back velcro. You may need to staple this on in addition to the adhesive.
Item: 1, TE-12001-01, Barrier Base
Resource: 1
Scale: 1/4
QTY: 1

Item: 2, TE-12001-02, 2x6 Barrier
Resource: 2
Scale: 1:1
QTY: 6
Item: 3, TE-12001-03, Plywood Top Barrier
Resource: 1
Scale: 1/2
QTY: 2

Item: 4, TE-12001-04, Plywood Side Barrier
Resource: 1
Scale: 1/2
QTY: 2
NOTE:
1.) Assemble items as shown using staples and wood glue
Item: 1, TE-12002-03, Inbound Shelf
Resources: 1
Scale: 1/4
QTY: 1

Drawing

TITLE
Inbound Station

SCALE

REV

200 Bedford Street, Manchester, NH 03101
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Notes:
1. Attach Items 1, 3, 4 and 5 to one another as shown using 3" Wood Screws as appropriate.

Notes:
1. Attach Item 7 to the assembly from Step 1 using 1.5" long wood screws.
2. Attach Item 6 to Item 7 as shown using 1.5" long wood screws.
Assembly Step 3

Notes:
1. Attach Item 2 (3X) as shown using 1.5" long wood screws.
Item: 1, TE-12003-01, Horizontal Brace
Resource: 1
Scale: 1/2
QTY: 2

Item: 2, TE-12003-02, Backboard
Resource: 2
Scale: 1/10
QTY: 3

Item: 3, TE-12003-03, Vertical Support
Resource: 1
Scale: 1/2
QTY: 2
Item: 1, TE-12003-04, Vertical Support 2
Resource: 1
Scale: 1/2
QTY: 1

Item: 2, TE-12003-05, Horizontal Brace 2
Resource: 1
Scale: 1/2
QTY: 1

Item: 3, TE-12003-06, Horizontal Brace 3
Resource: 1
Scale: 1/2
QTY: 1

Item: 4, TE-12003-07, Gusset
Resource: 2
Scale: 1/10
QTY: 2
Notes:

1. Use wood screws and glue as required to build assembly.
Assembly Step 2

This overhang is to help keep space between the bridge and the pinch guards to keep the bridge moving freely. Typical on both ends of base.

- Attach 4" velcro to the bottom of the base plate using staples to reinforce if needed. Velcro should run the entire length of the base plate.

Notes:
1. Use wood screws and glue to assemble parts.
Assembly Step 3

DETAIL C
SCALE 1/4

SECTION B-B
SCALE 1/8

Note: Item 2 should NOT be permanently attached to anything but the hinges. It should be able to freely rotate about the hinges.

Attach hinge to 2x4 supports using supplied hardware.

Attach hinge to hing plate using 3/4" long wood screws.
Assembly Step 4

Attach Base Assembly (from Step 2) to the assembly from Step 3 using supplied hinge hardware. Only attach the hinges. Bridge should be able to tilt both directions freely.

Assembly Step 5

Attach Item 11 to the bridge deck using wood screws. If you don't have enough polycarbonate to do the entire bridge deck, you can attach strips only where the robot wheels contact the bridge to ensure similar performance to the official FRG bridge.

Connect the pinch guards to the baseplate assembly using screws and glue. Do not screw into the assembly from Step 3.
Item: 4, TE-12004-04, Base Side
Resource: 3
Scale: 1/4
QTY: 2

Item: 5, TE-12004-05, Base Top
Resource: 2
Scale: 1/4
QTY: 1
DETAIL E
SCALE 1 : 1
Typical Both Ends

Item: 6, TE-12004-06, Bridge Deck
Resource: 2
Scale: 1/15
QTY: 1

Item: 7, TE-12004-07, Support Rib
Resource: 1
Scale: 1/15
QTY: 4

Item: 8, TE-12004-08, 2x4, Deck Mounting
Resource: 3
Scale: 1/4
QTY: 2

bridge, Team Element

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UNLESS OTHERWISE SPECIFIED
FRAC. +/- 1/32
.00 +/- .01
.000 +/- .005
ANGULAR +/- .25 Deg.

SCALE
C
TE-12004
REV B
SHEET 8 OF 9

12/20/2011
DRAWN
POSTED
CHECKED

FIRST
Round corner to eliminate sharp edges.

Item: 10, TE-12004-10, Pinch Guard
Resource: 2
Scale: 1/8
QTY: 1

Item: 12, TE-12004-012, Support, Pinch Guard
Resource: 3
Scale: 1/4
QTY: 1
Notes:
1. Items 6, 7, 8 and 9 are only used for the four hoop version. (see sheet 2)
2. Items 4 and 5 should be centered underneath the central baskets.
Four Hoop Version

Notes:
1. Attach Items 6, 7, 8 and 9 as necessary using wood screws.