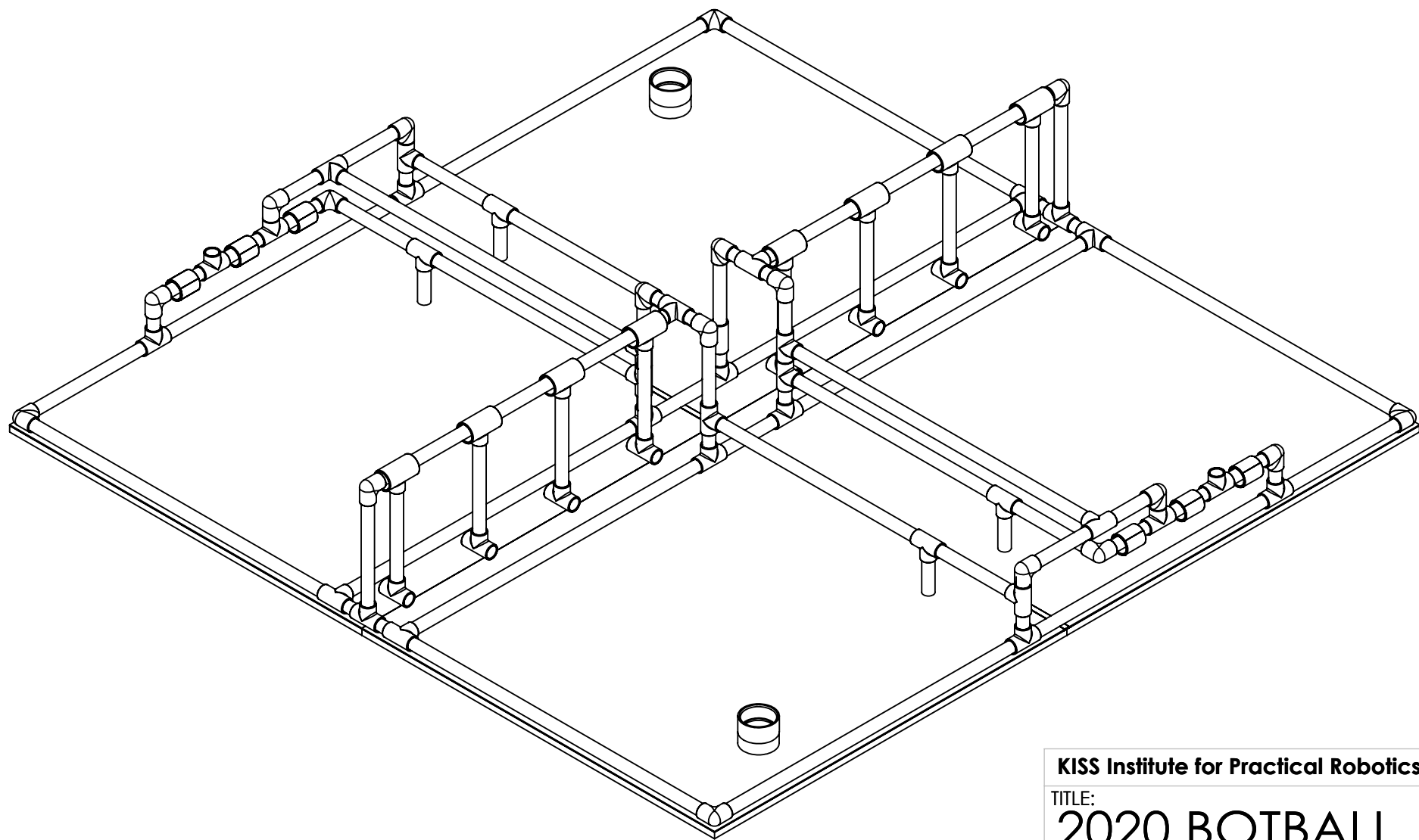


B

B

A

A



KISS Institute for Practical Robotics

TITLE:

2020 BOTBALL
PVC BUILD

SIZE

A

DWG. NO.

Full Assembly

REV

SCALE: 1:14

SHEET 1 OF 10

2

1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1.875 inch PVC	1" ID SCH 40	6
2	3.000 inch PVC	1" ID SCH 40	8
3	3.500 inch PVC	1" ID SCH 40	8
4	5.000 inch PVC	1" ID SCH 40	4
5	5.750 inch PVC	1" ID SCH 40	2
6	6.625 inch PVC	1" ID SCH 40	8
7	9.000 inch PVC	1" ID SCH 40	4
8	9.125 inch PVC	1" ID SCH 40	2
9	11.500 inch PVC	1" ID SCH 40	4
10	12.500 inch PVC	1" ID SCH 40	8
11	14.000 inch PVC	1" ID SCH 40	2
12	16.625 inch PVC	1" ID SCH 40	2
13	28.500 inch PVC	1" ID SCH 40	4
14	33.000 inch PVC	1" ID SCH 40	2
15	40.625 inch PVC	1" ID SCH 40	8
16	41.375 inch PVC	1" ID SCH 40	6
24	FRP 4' x 4'	White - cut from two 4' x 8' sheets	4
25	FRP Divider 48" long	White - cut from one 8' long part	2
26	Masonite 4'x8'	Brown hardboard panel	1
27	PVC Coupler	1.5" ID SCH 40	6
28	PVC Coupler	3" ID SCH 40 - Diam: 4", Height: 3.2", Weight: 7.48 oz	2
29	PVC Elbow	1" ID SCH 40	18
30	PVC T Connector	1" ID SCH 40	42
31	PVC T Connector	1.5" ID x 1" ID SCH 40	8
33	Particle Board 4' x 4' x 3/8" thick	or similar - can be cut from two 4' x 8' sheets	4
34	Whitewood Board 1x2 8'	Actual Dim: 0.75" x 1.5" x 8'	1

Note: All PVC Couplers, Elbows, and T Connectors used by KIPR are LASCO brand (except the 3" coupler which is Charlotte). These can typically be found at a Lowes or ordered through them online.

[Click here](#) to see the list at Lowes.

PVC Note: Assuming cuts remove 1/8" of PVC, teams will need 10 lengths of 10' PVC pipe.

Wood Note: The use of items 26 and 34 will be released at the workshop. Teams should get item 26 cut shortways as seen in the addendum on the last page.

KISS Institute for Practical Robotics

TITLE:

**2020 BOTBALL
PVC BUILD**

SIZE

A

DWG. NO.

PVC Build BOM

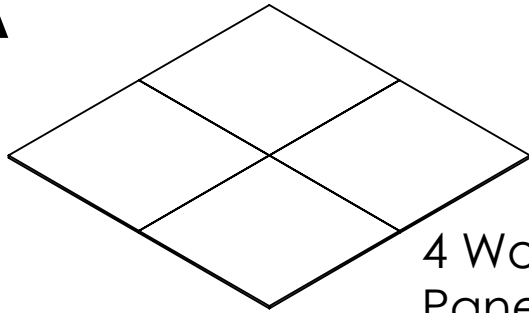
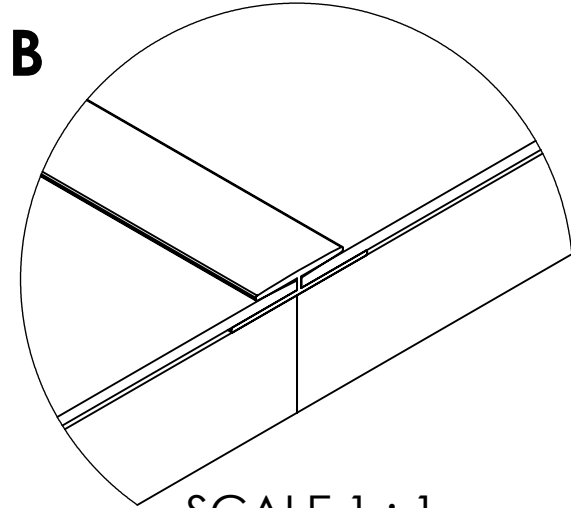
REV

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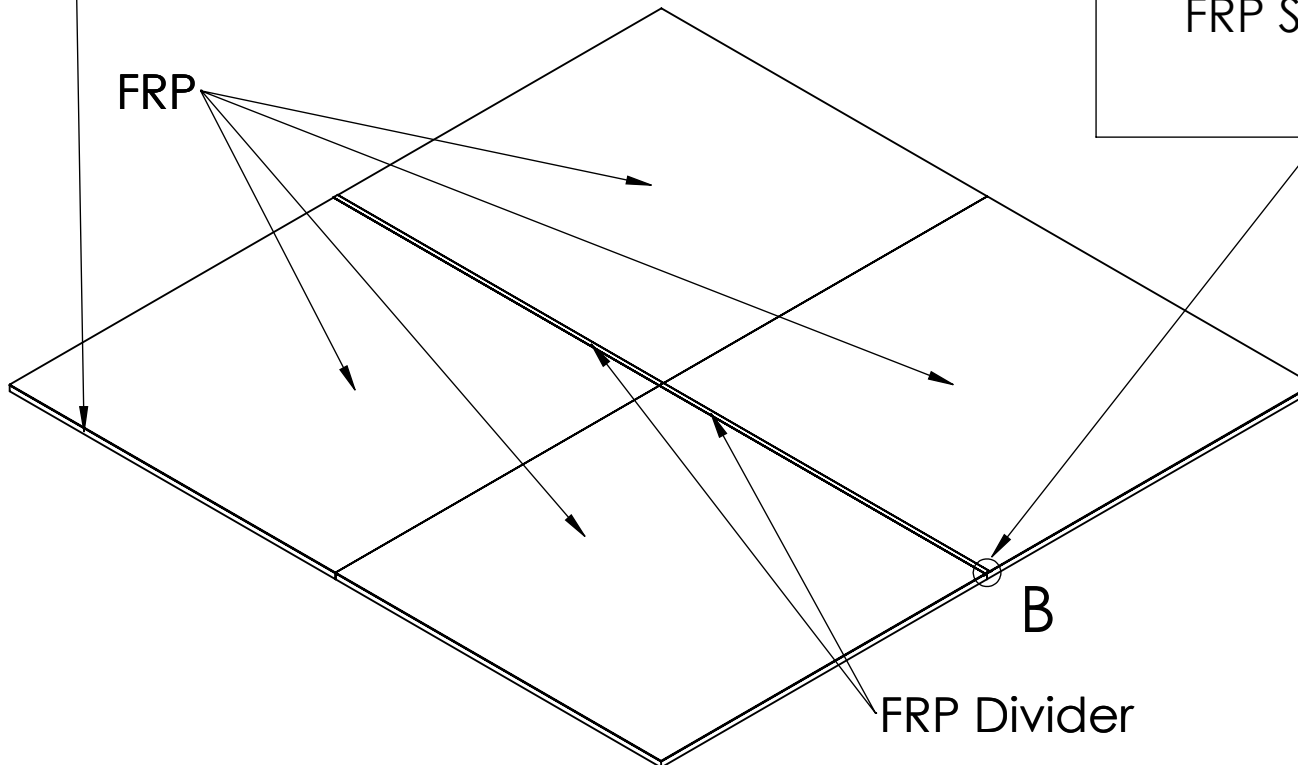
SHEET 2 OF 10

2

1

A4 Wood
Panels**B**SCALE 1 : 1
FRP Slides into Divider

FRP

**B**

FRP Divider

KISS Institute for Practical Robotics

TITLE:

**2020 BOTBALL
PVC BUILD**

SIZE

A

DWG. NO.

Game Surface

REV

SCALE: VARIED

SHEET 3 OF 10

2

1

B

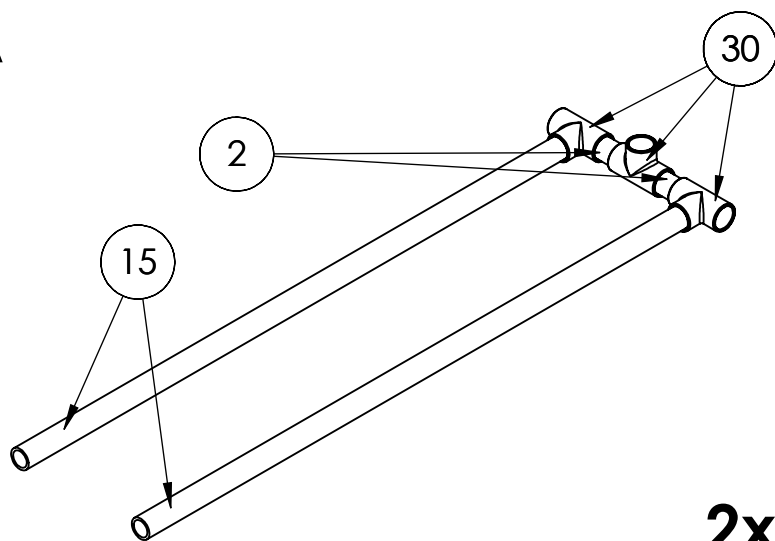
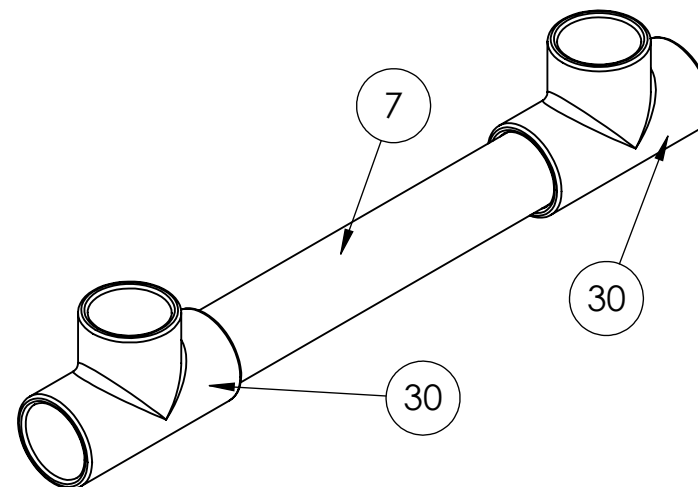
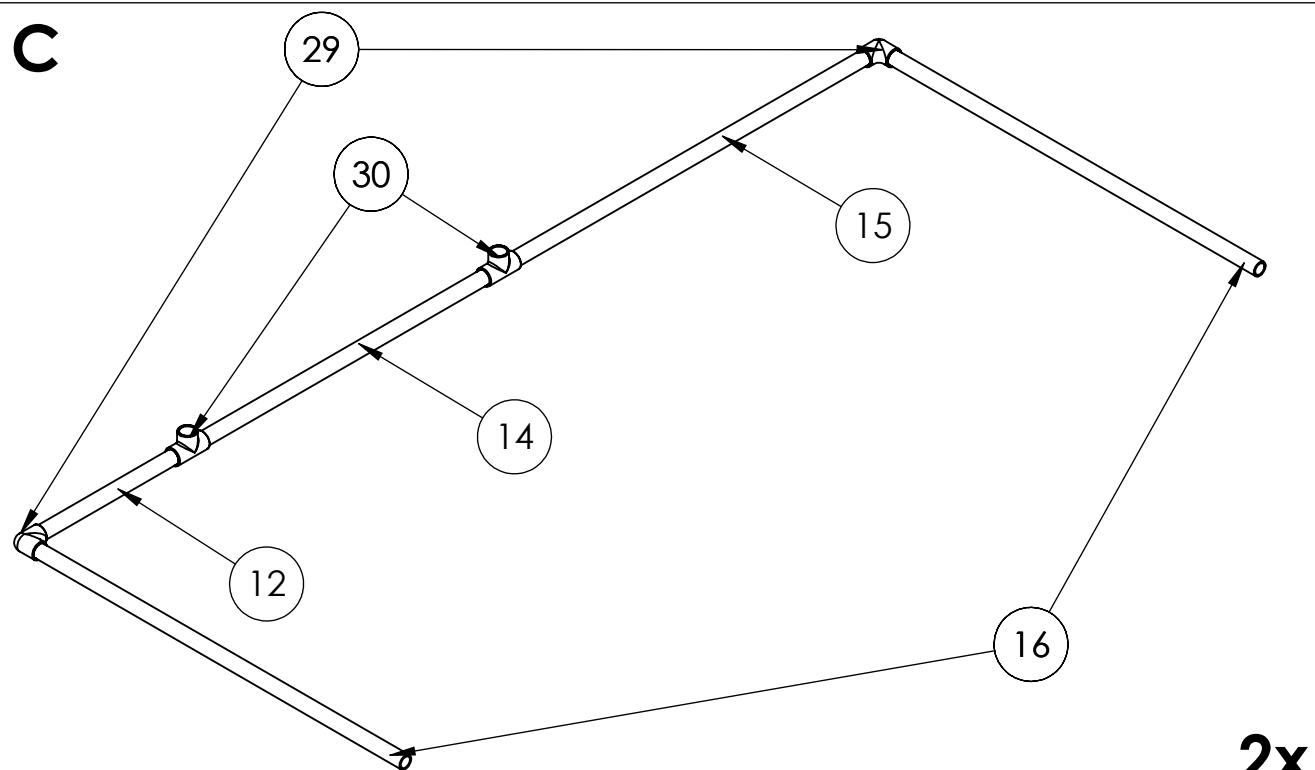
A

B

A

2

1

A**2x****B****2x****C****2x****KISS Institute for Practical Robotics**

TITLE:

**2020 BOTBALL
PVC BUILD**

SIZE

A

DWG. NO.

Assembly 1

REV

SCALE: VARIED

SHEET 4 OF 10

2

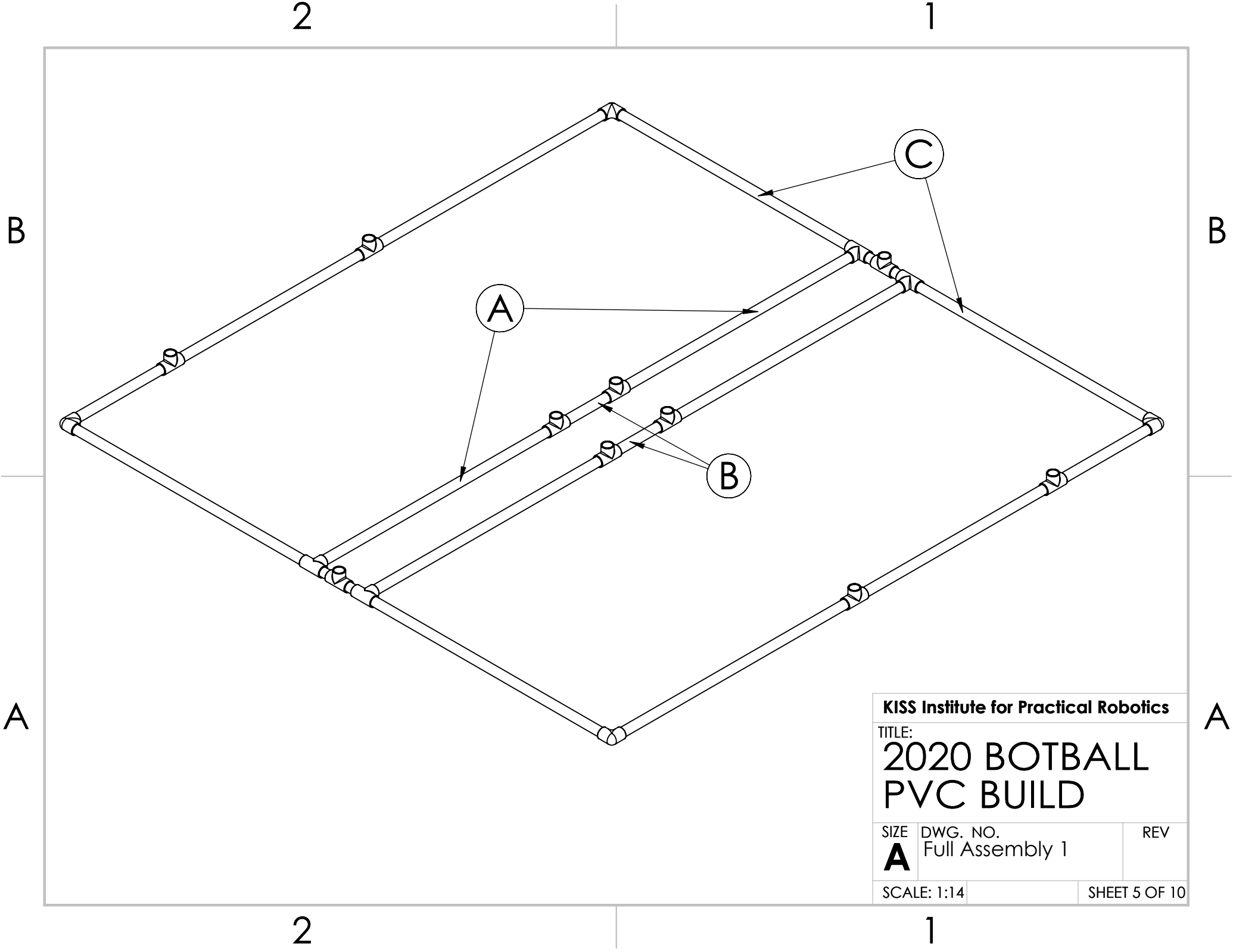
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B

A

B

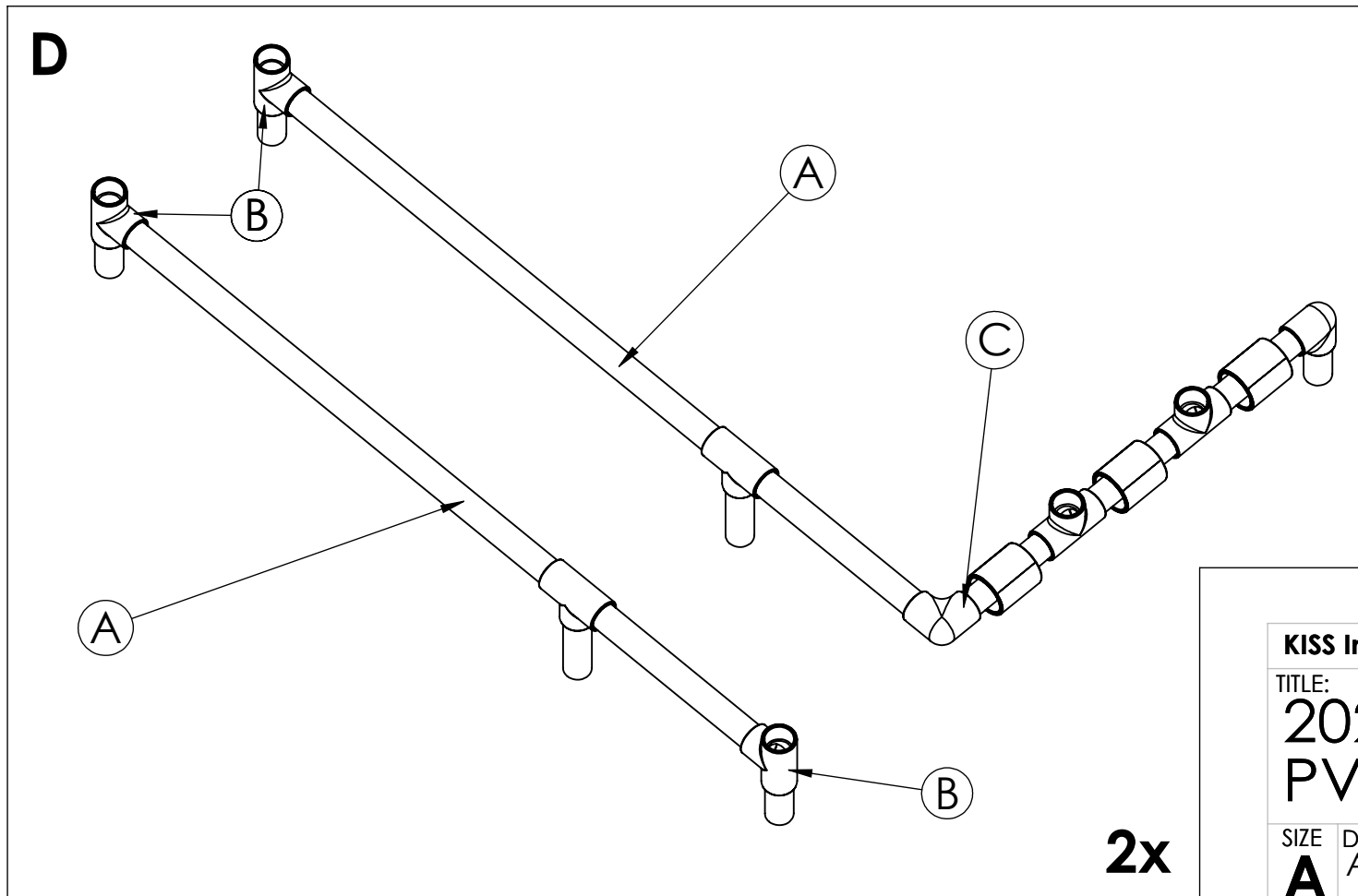
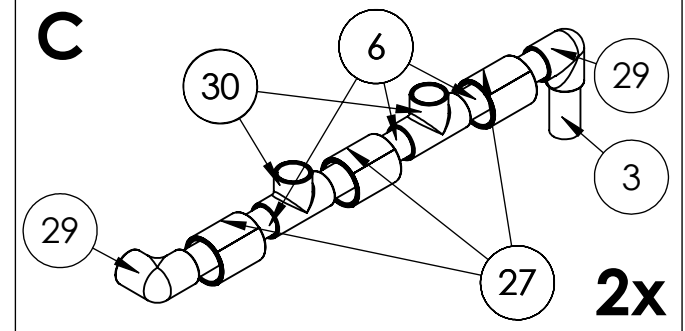
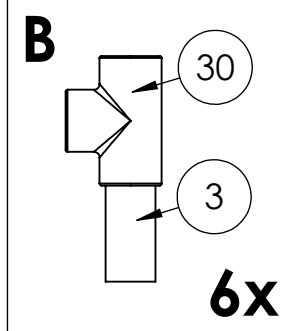
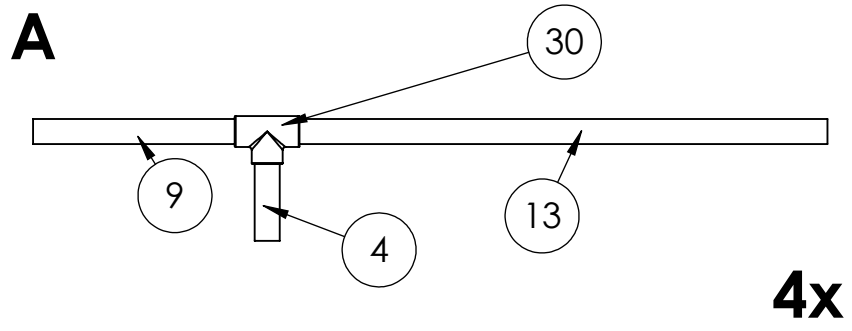
A



KISS Institute for Practical Robotics			
TITLE: 2020 BOTBALL PVC BUILD			
SIZE A	DWG. NO. Full Assembly 1		REV
SCALE: 1:14		SHEET 5 OF 10	

2

1



KISS Institute for Practical Robotics

TITLE:

2020 BOTBALL
PVC BUILD

SIZE

A

DWG. NO.

Assembly 2

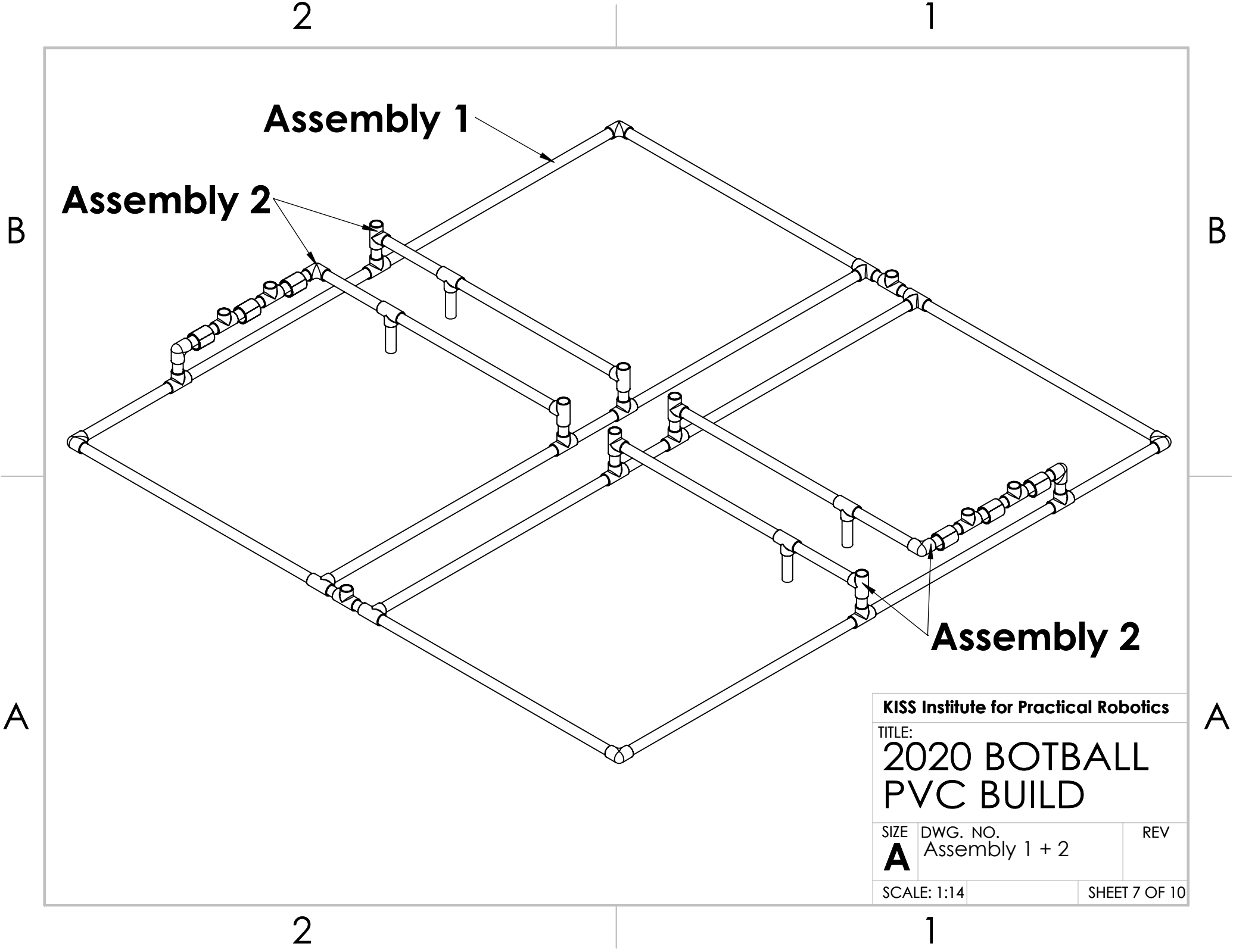
REV

SCALE: VARIED

SHEET 6 OF 10

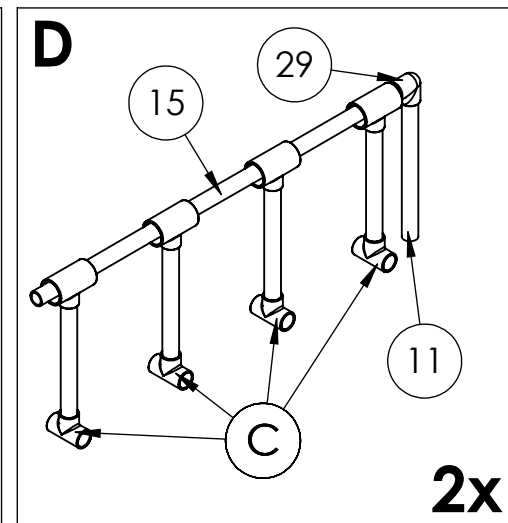
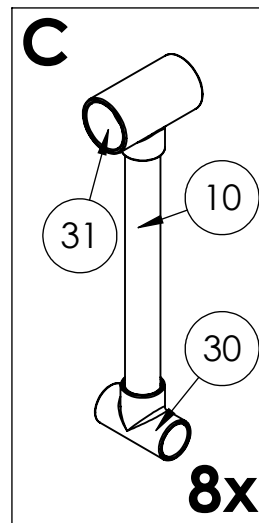
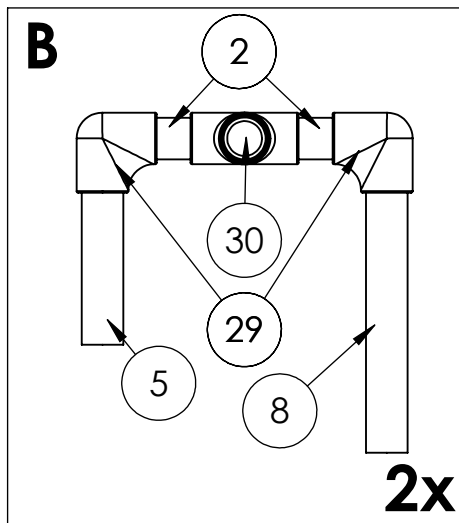
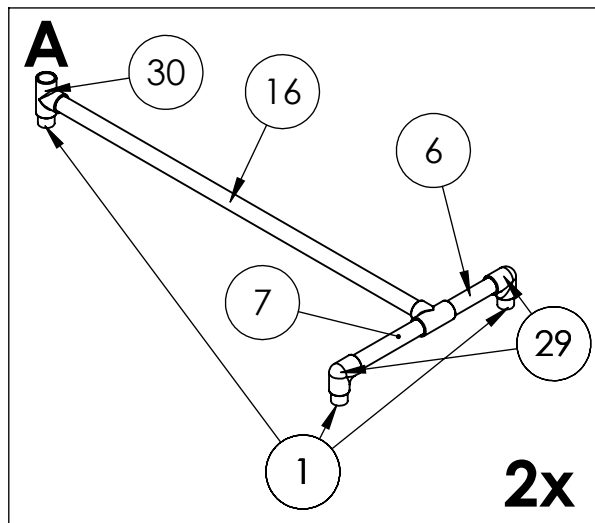
2

1



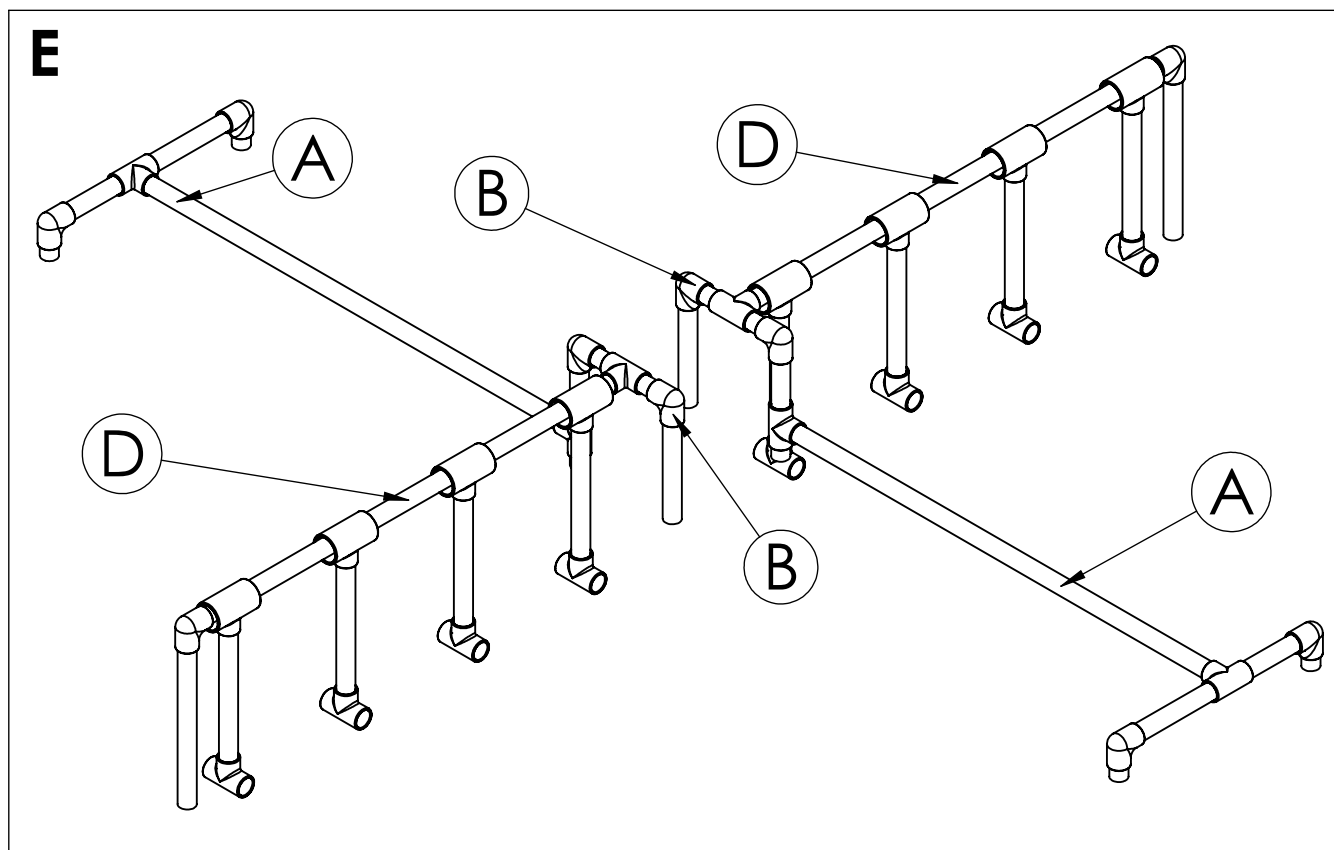
KISS Institute for Practical Robotics		
TITLE: 2020 BOTBALL PVC BUILD		
SIZE A	DWG. NO. Assembly 1 + 2	REV
SCALE: 1:14		SHEET 7 OF 10

B



B

A



A

KISS Institute for Practical Robotics

TITLE:

2020 BOTBALL
PVC BUILD

SIZE

A

DWG. NO.

Assembly 3

REV

SCALE: VARIED

SHEET 8 OF 10

2

1

2

1

Note: PVC is secured to the board with a screw through any T connectors or elbows touching the game surface.

Assembly 2

Assembly 3

Assembly 1

B

B

28

28

Assembly 3

Assembly 1

Game Surface

Assembly 2

A

A

KISS Institute for Practical Robotics

TITLE:

**2020 BOTBALL
PVC BUILD**

SIZE

A

DWG. NO.

Finished Assembly

REV

SCALE: 1:14

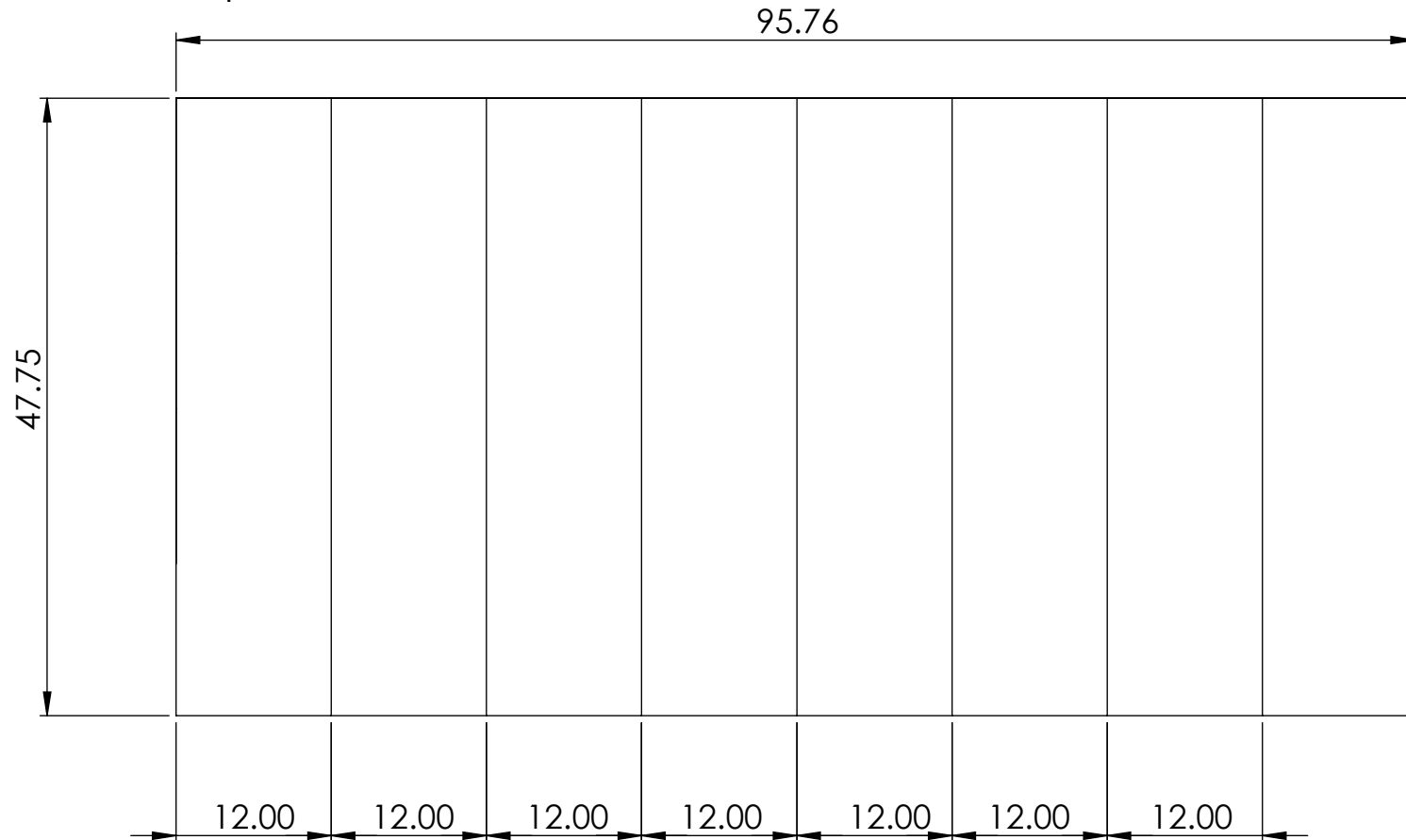
SHEET 9 OF 10

2

1

B

B



A

A

KISS Institute for Practical Robotics

TITLE:

**2020 BOTBALL
PVC BUILD**

SIZE

A

DWG. NO.

Addendum

REV

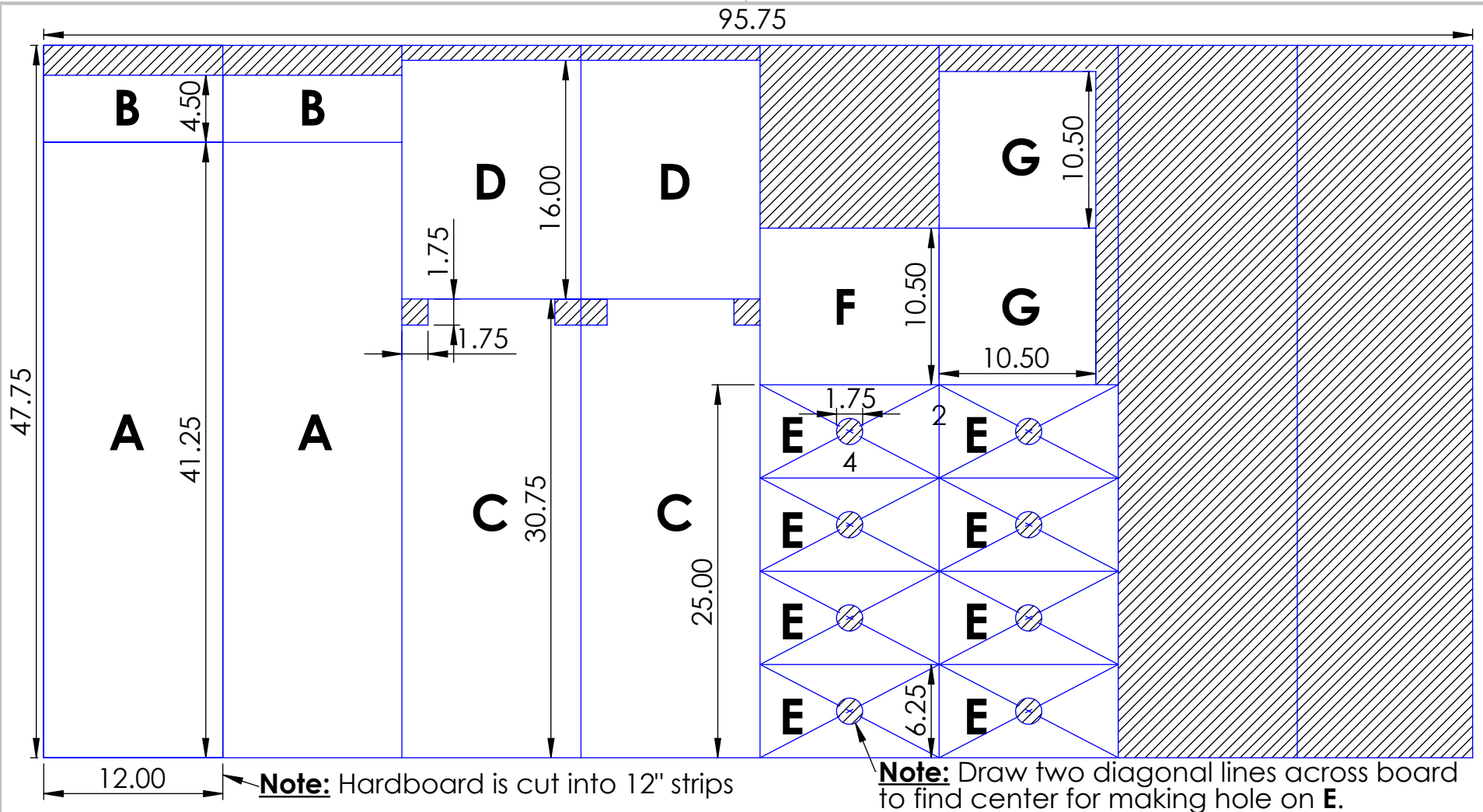
SCALE: 1:14

SHEET 10 OF 10

2

1

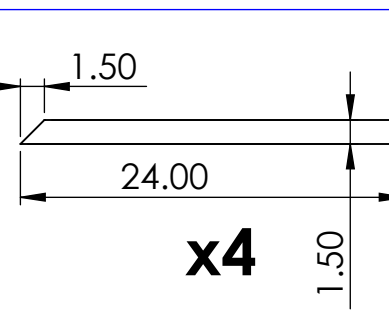
B



Masonite Hardboard Cuts

Whitewood Board Cuts

Letter	Count	Size	Description
A	2	41.25"x12"	Mining Ramp
B	2	4.5"x12"	Mountain Bottom
C	2	30.75"x12"	Mining Platform
D	2	16"x12"	Staging Area
E	8	6.25"x12"	Mine Carts
F	1	10.5"x12"	Mountain Top
G	2	10.5"x10.5"	Mountainside



KISS Institute for Practical Robotics

TITLE:
2020 WOOD CUTS

SIZE A	DWG. NO. Sheet1	REV
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SCALE: 1:10

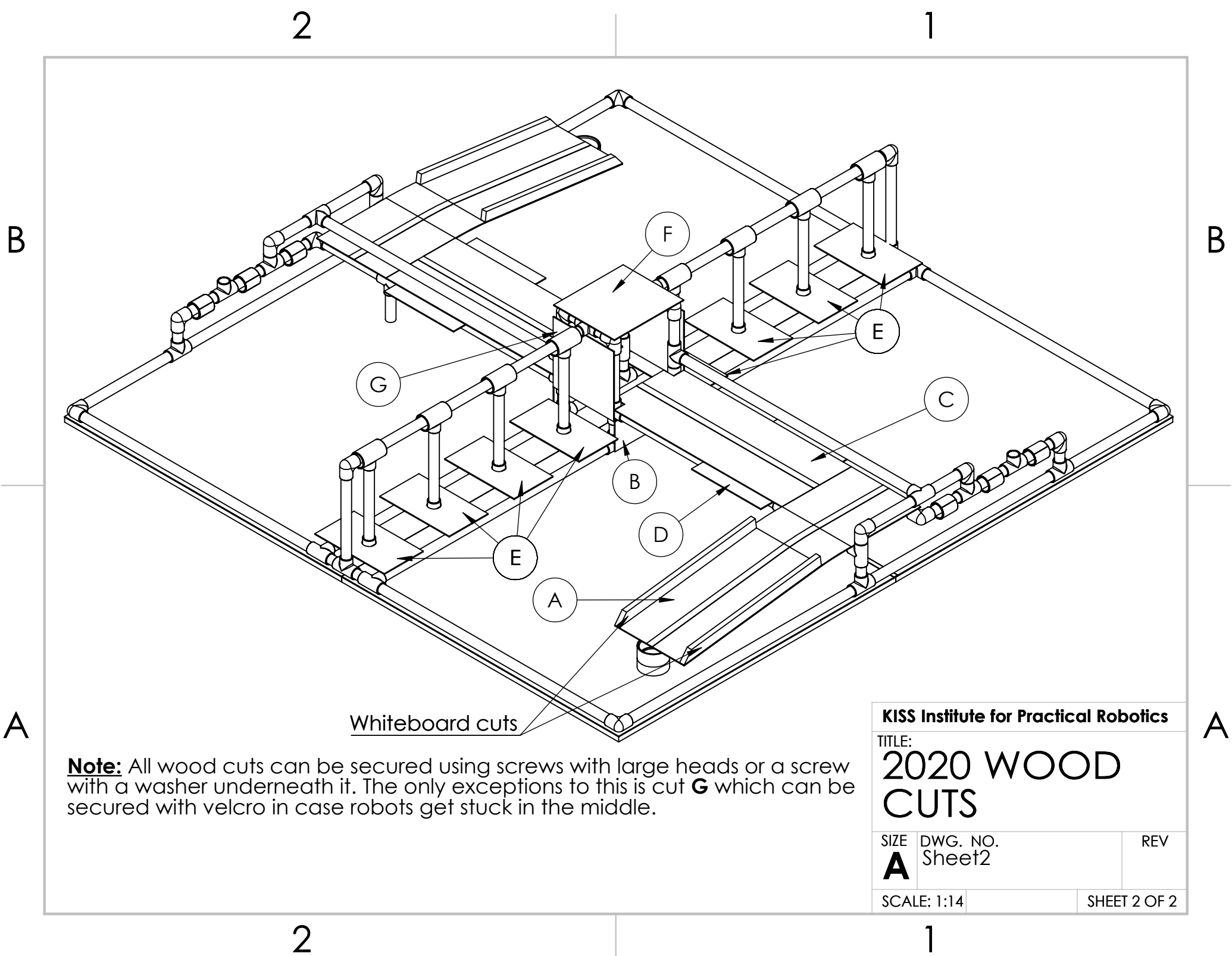
SHEET 1 OF 2

B

A

2

1



Note: All wood cuts can be secured using screws with large heads or a screw with a washer underneath it. The only exceptions to this is cut **G** which can be secured with velcro in case robots get stuck in the middle.

KISS Institute for Practical Robotics		
TITLE: 2020 WOOD CUTS		
SIZE A	DWG. NO. Sheet2	REV
SCALE: 1:14		SHEET 2 OF 2

