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[ARN\_HEIGHT = 36 \* \_1\_YARD; 3](#_Toc1642626)

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[ARN\_CY = SCR\_CY; 3](#_Toc1642629)

[ARN\_C2KZL = 12 \* \_1\_YARD; 3](#_Toc1642630)

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# Arena Display

Evaluating parameters for the Quidditch display dimensions

localparam \_1\_YARD = 12; // Number of pixels per yard. To be used in Arena Scaling

localparam SCR\_EDGE\_L = 20;

localparam SCR\_EDGE\_R = 780;

localparam SCR\_EDGE\_T = 40;

localparam SCR\_EDGE\_B = 560;

localparam SCR\_CX = (SCR\_EDGE\_R - SCR\_EDGE\_L)/2 + SCR\_EDGE\_L;

localparam SCR\_CY = (SCR\_EDGE\_B - SCR\_EDGE\_T)/2 + SCR\_EDGE\_T;

### ARN\_HEIGHT = 36 \* \_1\_YARD;

= 36 \* 12 = 432 pixels

### ARN\_WIDTH = 60 \* \_1\_YARD;

= 60 \* 12 = 720 pixels

### ARN\_CX = SCR\_CX;

//arena centre x coordinate

= 400px

### ARN\_CY = SCR\_CY;

//arena centre y coordinate

=300px

### ARN\_C2KZL = 12 \* \_1\_YARD;

//arena centre to keeper zone line

= 12\* 12 = 144 pixels

### ARN\_E2GHL = 12 \* \_1\_YARD;

//arena edge to goal Hooper line

= 12\*12 = 144 pixels

### ARN\_GH\_SZ = 3 \* \_1\_YARD;

//goal Hooper size

= 3\*12 = 36 pixels

### ARN\_BNDRY\_TOP\_Y = ARN\_CY - (ARN\_HEIGHT/2);

//Top edge of the arena

= 300 – (432/2) = 84px

### ARN\_BNDRY\_TB\_LHS\_X = ARN\_CX - (ARN\_C2KZL);

// LHS of the central rectangle

= 400 – 144 = 256px

### ARN\_BNDRY\_TB\_RHS\_X = ARN\_CX + (ARN\_C2KZL);

//RHS of the central rectangle

400+144 = 544px

### ARN\_BNDRY\_BOT\_Y = ARN\_CY + (ARN\_HEIGHT/2);

//Bottom edge of the area

300 + (432/2) = 516px

### ARN\_BNDRY\_LHS\_X = ARN\_CX - (ARN\_WIDTH/2);

// LHS edge of the arena

= 400 – (720/2) = 40px

### ARN\_BNDRY\_RHS\_X = ARN\_CX + (ARN\_WIDTH/2);

// RHS edge of the arena

= 400 + (720/2) = 760px

### ARN\_KZ\_LHS\_X = ARN\_CX - (ARN\_C2KZL);

// X coord of the keeper zone line LHS

= 400 – 144 = 256px

### ARN\_KZ\_RHS\_X = ARN\_CX + (ARN\_C2KZL);

// X coord of the keeper zone line RHS

= 400 + 144 = 544px

### ARN\_GH\_LHS\_X = ARN\_BNDRY\_LHS\_X + ARN\_E2GHL;

//goal hoop lhs x coord

= 40+144 = 184px

### ARN\_GH\_RHS\_X = ARN\_BNDRY\_RHS\_X - ARN\_E2GHL;

//goal hoop rhs x coord

= 760 – 144 = 616px

### ARN\_GH\_LR\_YT = ARN\_CY - (2 \* ARN\_GH\_SZ);

//top goal hoop y coord

= 300 – (2\*36) = 228px

### ARN\_GH\_LR\_YM = ARN\_CY;

//middle goal hoop y coord

= 300px

### ARN\_GH\_LR\_YB = ARN\_CY + (2 \* ARN\_GH\_SZ);

//bottom goal hoop y coord

= 300 + (2\*36) = 372px

### ARN\_BNDRY\_LHS\_CX = ARN\_CX - (ARN\_C2KZL);

// Centre of the LHS Semi-circle X coord

= 400 – 144 = 256px

### ARN\_BNDRY\_LHS\_CY = ARN\_CY;

// Centre of the LHS Semi-circle Y coord

= 300px

### ARN\_BNDRY\_RHS\_CX = ARN\_CX + (ARN\_C2KZL);

// Centre of the RHS Semi-circle X coord

= 400 + 144 = 544px

### ARN\_BNDRY\_RHS\_CY = ARN\_CY;

// Centre of= the RHS Semi-circle Y coord

=300px

### ARN\_BNDRY\_SC\_RADIUS = ARN\_WIDTH/2;

// Radius of the Semi circles

= 720/2 = 360px