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Programming in the Arts with Processing

In Class Exercise #8**Day:****Due:****Goal:****Thur 2.6.14****In Class****More Control****Course Web Site:**<http://www.andrew.cmu.edu/course/60-257/>**Reading:**

Posted on the calendar web page available from the link shown above.

Assignment:

The code below is in the zip file you just downloaded. Use it as your starting code.

Here are the details:

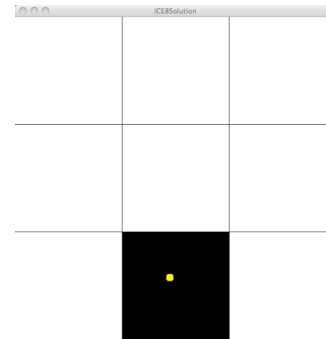
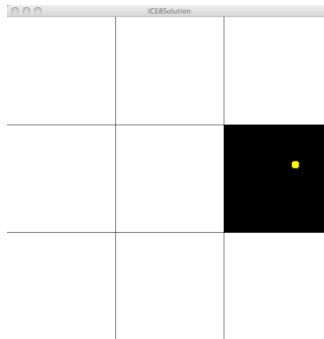
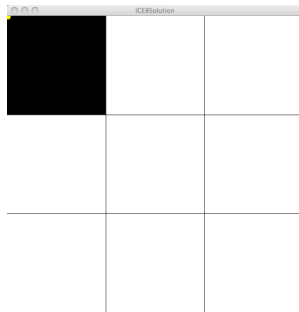
- The window is divided into three rows and three columns making nine blocks.
- The blocks are the same size and are square.
- When the mouse moves, the block in which the mouse is located turns black and all other blocks are white.
- The code in the function `drawBlackBlock()` that detects which block must be black is missing – finish the function.

You **should** do this without magic numbers but, since it is an in-class exercise, you may use them with no penalty.

The mouse begins with values of `mouseX` and `mouseY` set to zero so the upper left corner block should be black when the program starts. The yellow circle is drawn to show the mouse location.

Examples:

Initial frame



Starting Code:

```
float numSegments; // number of rows and columns
float segmentSize; // width and height of each block

void setup ( )
{
  size( 600, 600 ); //must be square
  numSegments = 3;
  segmentSize = width/numSegments;
}

void draw ( )
{
  drawGrid( );
  drawBlackBlock( );
  showMouse( );
}

void drawBlackBlock( )
{
  fill( 0 );
}

void drawGrid( )
{
  background( 255 );
  // horizontal lines;
  line( 0, segmentSize, width, segmentSize); // top line
  line( 0, 2*segmentSize, width, 2*segmentSize );// bottom line
  // vertical lines:
  line( segmentSize, 0, segmentSize, height ); // left line
  line( 2*segmentSize, 0, 2*segmentSize, height );// right line
}

void showMouse( )
{
  fill( 255, 255, 0 );
  ellipse( mouseX, mouseY,15, 15 );
}
```