Reacting to the Mouse and Keyboard

```cpp
void draw( )
{
  stroke(0, 0, 0);
  fill(255, 50, 50);
  if( mousePressed )
    
    Circle( mouseX, mouseY, 50, 20 );
}
```

The `mousePressed`, `mouseX`, and `mouseY` Variables

- `mousePressed` is a built-in variable that is always telling you if a mouse button is currently pressed.
- `mouseX` and `mouseY` are built-in variables that are always telling you where the mouse cursor is.
void draw() {
    stroke(0, 0, 0);
    fill(255, 50, 50);
    if (mousePressed)
    {
        Circle(mouseX, mouseY, 50, 20);
    }
}
void draw( )
{
    if( keyPressed )
    {
        switch( key )
        {
            case 'r':
                fill( 255, 50, 50 );
                break;
            case 'g':
                fill( 50, 255, 50 );
                break;
            case 'b':
                fill( 50, 50, 255 );
                break;
        }
    }
    if( mousePressed )
    {
        Circle( mouseX, mouseY, 50, 20 );
    }
}

The keyPressed and key Variables

keyPressed is a built-in variable that is always telling you if a keyboard key has been pressed.

key is a built-in variable that tells you what key has been hit.

The switch/case statements are Processing's way of checking many values without having a whole slew of if-statements.

// moved the stroke( ) and fill( ) calls to setup( )
if( keyPressed )
{
    switch( key )
    {
        case 'r':
            fill( 255, 50, 50 );
            break;
        case 'g':
            fill( 50, 255, 50 );
            break;
        case 'b':
            fill( 50, 50, 255 );
            break;
    }
}

if( mousePressed )
{
    Circle( mouseX, mouseY, 50, 20 );
}
You can also define your own functions to handle the mouse and keyboard explicitly, but we don’t need these yet

```java
void mousePressed() {
    if (Debug)
        println("mouse button = " + mouseButton);
}

void mouseMoved() {
    if (Debug)
        println("mouse has been moved: " + mouseX + ", " + mouseY);
}

void mouseDragged() {
    if (Debug)
        println("mouse has been dragged: " + mouseX + ", " + mouseY);
}
```