

# Code to Randomly Select Grid Squares on Blood Slides

Cory McKinstry

**Context:** We have hundreds of blood slides that we want to do cell counts on. We recently purchased a stamp that we can use to find random positions on the blood slides that we can take photographs of, then complete cell counts on.

**Goal:** Based on an 8x8 grid where columns are A-H and rows are 1-8, randomly select grid cell values to use as picture locations on the blood slides.

## Loading Packages

```
library(tidyverse)
```

## Creating Dataframe of Values

```
columns <- c("A", "B", "C", "D", "E", "F", "G", "H")
#If you're doing two stamps per slide, extend columns to P
rows <- seq(1, 8, 1)

combinations <- expand.grid(
  columns = columns, rows = rows)

combinations$combinations <- paste(
  combinations$columns, combinations$rows, sep="")
```

## Creating Random List from Values

```
set.seed(123) #For reproducibility, change for new random values

random.list <- sample(
  combinations$combinations,
  1000, #Length of the random list
  replace = TRUE,
  prob = NULL)
```

## Full list

```
random.list
```

```
[1] "G4" "G2" "C7" "F2" "C1" "B6" "B7" "F7" "C6" "E5" "D7" "F2" "F7" "A4"
[15] "B4" "C4" "H8" "E1" "C7" "C4" "A8" "D4" "A8" "A2" "E4" "C5" "H1" "B4"
[29] "G1" "B6" "A2" "F8" "C3" "D5" "F2" "A3" "C6" "G5" "E7" "D2" "G2" "H4"
[43] "B6" "E6" "G1" "A2" "A6" "B2" "G3" "C4" "D8" "E7" "G1" "E7" "C4" "H4"
[57] "F5" "A4" "B5" "E4" "E1" "H1" "D2" "G8" "E2" "B3" "A5" "A8" "C4" "A4"
[71] "F5" "E3" "G2" "A6" "G6" "B4" "D8" "G4" "H2" "D7" "F4" "F1" "C6" "H1"
[85] "F3" "F3" "G5" "G4" "H6" "A3" "F7" "B7" "A7" "B5" "D1" "E2" "E1" "F7"
[99] "G8" "C7" "A4" "D7" "F3" "A4" "H4" "F6" "A4" "G3" "C5" "H5" "H6" "F4"
[113] "D2" "G4" "A8" "F6" "F4" "H8" "C5" "F2" "E4" "H4" "G1" "C1" "G3" "F7"
[127] "B8" "G2" "E3" "E5" "H1" "C7" "B2" "B7" "B6" "D6" "B5" "B2" "F3" "G8"
[141] "D2" "D3" "F6" "A3" "F8" "F6" "F7" "C5" "H5" "F6" "C7" "F4" "G2" "H3"
[155] "A7" "G3" "C6" "G1" "E4" "G2" "G3" "B4" "F5" "F6" "G8" "H4" "G1" "C4"
[169] "B6" "E1" "F1" "H2" "H3" "H4" "E3" "G7" "C2" "D5" "D6" "F6" "D8" "E8"
[183] "C3" "A4" "G5" "F7" "B4" "A2" "G1" "B5" "H6" "E2" "C3" "H7" "D7" "G6"
[197] "G5" "D1" "A1" "H5" "F4" "F4" "D7" "A4" "H2" "H3" "F7" "C2" "H6" "D3"
[211] "H5" "C1" "E4" "D5" "D7" "D6" "F3" "A7" "B6" "C8" "D3" "C2" "A8" "G7"
[225] "H1" "F6" "E3" "E6" "B1" "C6" "E2" "F6" "F1" "A8" "H1" "D6" "H4" "B8"
[239] "D5" "E6" "E8" "F2" "E7" "H2" "G3" "E8" "A5" "H5" "H5" "B2" "A4" "H1"
[253] "B3" "E8" "E7" "A2" "G1" "G1" "B8" "E8" "D8" "B2" "H3" "G8" "F7" "G3"
[267] "B4" "C6" "A5" "A8" "E8" "E4" "C7" "B2" "E7" "F7" "E2" "C6" "C2" "A4"
[281] "D7" "B4" "G1" "A4" "G3" "B4" "H4" "D3" "E8" "H3" "A8" "A2" "A6" "E5"
[295] "G3" "F2" "F6" "F1" "C4" "A1" "B4" "B6" "A7" "B8" "A3" "E4" "B4" "C4"
[309] "E3" "G1" "D8" "E7" "B4" "A6" "D3" "F1" "B7" "F4" "G4" "E4" "A3" "H8"
[323] "E5" "A8" "D3" "C5" "A4" "F6" "A5" "B1" "D1" "B2" "A5" "E1" "E7" "A4"
[337] "H1" "G7" "A4" "E3" "E6" "B3" "B6" "G4" "F1" "G1" "E8" "A6" "H6" "A3"
[351] "E7" "E6" "D4" "G8" "E7" "H5" "E7" "G8" "G1" "D3" "B3" "E4" "A3" "A5"
[365] "B1" "A7" "B1" "E2" "H3" "A7" "G8" "C1" "B3" "B1" "E5" "G8" "D2" "A8"
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[379] "E2" "B6" "E8" "F1" "B6" "B6" "F5" "D8" "H6" "H8" "H2" "C5" "D5" "C4"  
 [393] "C4" "C5" "E8" "G3" "C1" "G4" "H6" "B1" "G6" "G3" "C1" "A2" "E8" "G5"  
 [407] "F4" "G4" "F4" "A2" "D5" "B5" "F3" "B8" "D6" "A6" "D4" "E4" "E8" "C6"  
 [421] "G5" "E6" "E5" "C6" "A5" "C3" "D2" "B5" "E3" "A3" "G8" "D2" "F4" "C5"  
 [435] "F4" "A4" "B7" "G6" "F7" "C1" "C7" "A8" "B3" "H4" "A3" "F5" "B6" "H5"  
 [449] "B6" "H4" "B4" "E2" "D3" "F5" "D3" "E4" "D3" "F4" "A6" "H6" "H1" "G5"  
 [463] "B2" "A3" "G8" "B3" "H5" "C7" "B6" "G7" "C2" "A7" "D6" "B1" "C3" "E2"  
 [477] "E2" "G4" "F4" "C7" "F3" "F4" "B2" "H2" "E1" "D5" "B7" "A5" "H2" "D4"  
 [491] "A7" "D2" "E7" "D4" "B1" "B7" "D2" "G6" "C7" "E7" "F1" "H2" "H8" "B8"  
 [505] "G2" "C3" "C8" "C1" "F6" "A5" "H7" "A5" "H6" "C2" "D5" "H7" "D6" "E6"  
 [519] "B2" "B6" "H3" "D4" "G5" "B3" "A3" "D3" "C8" "A2" "E7" "C2" "D6" "H1"  
 [533] "B7" "E1" "E4" "B7" "F1" "B2" "B4" "A2" "C2" "G7" "F1" "H4" "D2" "C3"  
 [547] "C4" "H7" "H4" "C4" "F4" "G7" "D1" "H3" "D4" "C1" "F6" "H5" "F1" "D5"  
 [561] "G7" "B6" "H6" "C8" "H7" "F4" "H6" "D7" "B2" "A4" "F5" "C7" "D5" "A6"  
 [575] "A4" "D1" "G2" "D7" "F3" "E7" "A7" "H3" "G5" "G6" "D8" "G8" "E5" "F6"  
 [589] "F7" "G6" "G2" "H2" "C3" "H1" "G4" "B8" "E5" "G5" "D7" "H6" "D8" "F8"  
 [603] "H2" "A2" "C2" "C6" "C7" "F4" "E8" "B2" "G7" "E8" "B5" "A8" "F8" "F5"  
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 [645] "H4" "A7" "C5" "D4" "G6" "D3" "A1" "E1" "C2" "G6" "D3" "B1" "F8" "H6"  
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 [729] "A3" "B4" "C8" "A8" "A8" "C6" "G3" "B4" "D5" "E6" "H1" "G2" "G8" "C8"  
 [743] "D5" "E6" "C1" "G5" "A5" "F5" "E6" "B4" "D4" "B4" "A3" "G3" "E7" "F5"  
 [757] "B2" "E6" "F5" "A6" "H1" "A1" "H2" "F7" "B1" "H5" "F2" "D2" "B4" "H1"  
 [771] "G8" "A6" "H1" "A8" "A2" "D7" "A5" "C1" "H5" "B1" "A1" "A2" "G7" "G1"  
 [785] "E2" "E4" "D3" "F2" "D8" "H2" "G1" "D5" "E6" "D2" "A4" "C4" "E2" "D3"  
 [799] "B2" "F4" "G8" "A6" "D2" "H1" "G1" "A8" "G2" "C3" "A7" "C6" "G5" "C7"  
 [813] "G8" "G3" "B8" "C5" "F1" "G1" "D1" "B2" "A3" "H6" "H1" "E7" "C1" "D6"  
 [827] "H8" "E7" "F6" "E5" "F2" "D4" "F1" "A2" "A5" "D7" "F6" "H8" "C3" "E5"  
 [841] "B5" "A1" "D4" "D7" "F4" "D1" "C8" "B4" "B8" "C2" "E1" "F7" "D5" "C3"  
 [855] "C5" "A5" "G5" "E1" "E8" "G3" "A6" "A4" "G8" "H7" "A7" "E3" "E1" "H8"  
 [869] "H7" "D2" "B1" "F7" "B3" "D1" "B6" "G6" "G3" "F7" "H1" "A1" "H7" "C2"  
 [883] "E5" "C2" "G2" "G2" "A8" "H7" "B6" "G2" "G2" "D7" "D6" "A6" "E8" "A4"  
 [897] "D5" "C1" "G1" "D1" "H7" "H5" "E7" "E5" "H3" "F5" "D1" "C1" "C2" "B2"  
 [911] "H8" "E4" "G3" "E1" "H3" "H4" "A4" "C2" "B2" "G2" "C7" "D8" "G4" "B2"  
 [925] "E6" "C8" "H3" "H8" "C5" "B7" "B2" "H8" "H1" "D6" "B6" "H4" "G5" "G1"  
 [939] "F5" "A3" "D3" "H8" "A5" "E5" "B2" "E6" "B2" "B1" "G2" "G3" "G6" "H5"  
 [953] "C5" "B1" "F1" "F6" "C8" "G6" "C7" "A2" "G3" "A4" "G2" "F3" "H6" "H1"  
 [967] "E4" "A6" "E3" "G7" "H6" "A2" "B5" "H7" "A6" "C6" "H7" "C2" "D1" "G1"

[981] "H7" "B7" "D8" "C2" "F7" "A5" "C2" "D8" "B8" "F5" "E3" "B2" "A8" "B7"  
[995] "C1" "C5" "B5" "B8" "H5" "D4"