```r
library(stringr)
options(knitr.kable.NA = '')
root <- fs::path_abs(".")
create_Experiments_instructions_DF <- function(variants, repeats, parameter, unit, variant_t
    # Check if variants and repeats are of the same length
    if (length(variants) != length(repeats)) {
        stop("Length of variants and repeats must be the same.")
    }

    # Create the dataframe
    df <- data.frame(
        Variant = rep(variants, times = repeats),
        Number_of_Repeats = unlist(lapply(repeats, function(r) c(r, rep(NA, r - 1)))),
        Variants_Filenames = unlist(lapply(seq_along(variants), function(i) {
            variant <- variants[i]
            repeatCount <- repeats[i]
            c(paste(parameter, variant, 1, sep = "-"),
              if (repeatCount > 1) paste(parameter, variant, 2:repeatCount, sep = "-") else
        }))
    )

    # Replace dots with 'd' in Variants_Filenames column
    df$Variants_Filenames <- gsub("\\.", "d", df$Variants_Filenames)

    # Initialize a last seen variant variable
    last_seen_variant <- ""

    # Format the Variant column
    df$Variant <- sapply(df$Variant, function(v) {
        if (v == last_seen_variant) {
            NA  # Leave cell empty if it is the same as the last seen variant
        } else {
            last_seen_variant <<- v
            v  # Display the variant if it is different from the last seen
        }
    })
    rm(last_seen_variant)
    # Add unit to header
    variant_text <- paste0(variant_text, " [", unit, "]")

    # Rename columns
    colnames(df) <- c(variant_text, nor_text, variants_filenames_text)
```

```
    return(df)
}


variants <- c(-10,-5,0,5,10)
repeats <- c(7,7,7,7,7)
parameter <- "y-axis-tilt-gfa"
unit <- "°"

df <- create_Experiments_instructions_DF(variants, repeats, parameter, unit, "degrees off of
knitr::kable(df, caption = "Frontal images: Overview on the groups and repeats for which an
```

Table 1: Frontal images: Overview on the groups and repeats for which an image must be taken. For each *Variant*, its value (e.g. -5, 0, 10) denotes the respective angle in degrees of the camera relative to the subject. 0 degrees denotes the lens camera's sensor being perpendicular to the calibration-plate. Positive tilts point the camera upwards toward the ceiling, negative tilts point the camera towards the floor.

degrees off of normal [°]	n	Variants/Filenames
-10	7	y-axis-tilt-gfa–10-1
		y-axis-tilt-gfa–10-2
		y-axis-tilt-gfa–10-3
		y-axis-tilt-gfa–10-4
		y-axis-tilt-gfa–10-5
		y-axis-tilt-gfa–10-6
		y-axis-tilt-gfa–10-7
-5	7	y-axis-tilt-gfa–5-1
		y-axis-tilt-gfa–5-2
		y-axis-tilt-gfa–5-3
		y-axis-tilt-gfa–5-4
		y-axis-tilt-gfa–5-5
		y-axis-tilt-gfa–5-6
		y-axis-tilt-gfa–5-7
0	7	y-axis-tilt-gfa-0-1
		y-axis-tilt-gfa-0-2
		y-axis-tilt-gfa-0-3
		y-axis-tilt-gfa-0-4
		y-axis-tilt-gfa-0-5
		y-axis-tilt-gfa-0-6
		y-axis-tilt-gfa-0-7
5	7	y-axis-tilt-gfa-5-1

degrees off of normal [°]	n	Variants/Filenames
		y-axis-tilt-gfa-5-2
		y-axis-tilt-gfa-5-3
		y-axis-tilt-gfa-5-4
		y-axis-tilt-gfa-5-5
		y-axis-tilt-gfa-5-6
		y-axis-tilt-gfa-5-7
10	7	y-axis-tilt-gfa-10-1
		y-axis-tilt-gfa-10-2
		y-axis-tilt-gfa-10-3
		y-axis-tilt-gfa-10-4
		y-axis-tilt-gfa-10-5
		y-axis-tilt-gfa-10-6
		y-axis-tilt-gfa-10-7

```
print(df)
```

```
    degrees off of normal [°]   n    Variants/Filenames
1                         -10   7 y-axis-tilt-gfa--10-1
2                          NA  NA y-axis-tilt-gfa--10-2
3                          NA  NA y-axis-tilt-gfa--10-3
4                          NA  NA y-axis-tilt-gfa--10-4
5                          NA  NA y-axis-tilt-gfa--10-5
6                          NA  NA y-axis-tilt-gfa--10-6
7                          NA  NA y-axis-tilt-gfa--10-7
8                          -5   7  y-axis-tilt-gfa--5-1
9                          NA  NA  y-axis-tilt-gfa--5-2
10                         NA  NA  y-axis-tilt-gfa--5-3
11                         NA  NA  y-axis-tilt-gfa--5-4
12                         NA  NA  y-axis-tilt-gfa--5-5
13                         NA  NA  y-axis-tilt-gfa--5-6
14                         NA  NA  y-axis-tilt-gfa--5-7
15                          0   7   y-axis-tilt-gfa-0-1
16                         NA  NA   y-axis-tilt-gfa-0-2
17                         NA  NA   y-axis-tilt-gfa-0-3
18                         NA  NA   y-axis-tilt-gfa-0-4
19                         NA  NA   y-axis-tilt-gfa-0-5
20                         NA  NA   y-axis-tilt-gfa-0-6
21                         NA  NA   y-axis-tilt-gfa-0-7
22                          5   7   y-axis-tilt-gfa-5-1
23                         NA  NA   y-axis-tilt-gfa-5-2
```

```
24                        NA NA   y-axis-tilt-gfa-5-3
25                        NA NA   y-axis-tilt-gfa-5-4
26                        NA NA   y-axis-tilt-gfa-5-5
27                        NA NA   y-axis-tilt-gfa-5-6
28                        NA NA   y-axis-tilt-gfa-5-7
29                        10  7  y-axis-tilt-gfa-10-1
30                        NA NA  y-axis-tilt-gfa-10-2
31                        NA NA  y-axis-tilt-gfa-10-3
32                        NA NA  y-axis-tilt-gfa-10-4
33                        NA NA  y-axis-tilt-gfa-10-5
34                        NA NA  y-axis-tilt-gfa-10-6
35                        NA NA  y-axis-tilt-gfa-10-7
```