**Table S1.** The best fitting models, $X_t^{max}$ and $\Delta RH_x^{max}$ values for both variants of both types of artificial flowers. Subscript letters following best fitting models indicate shape of that model: L, linear models; and Q, quadratic models (note quadratic models were not fitted to the z axis). Subscript values next to $X_t^{max}$ values indicate replicate effects: the number itself referring to the replicate transect at which $\Delta RH_x^{max}$ was found; no subscript values indicates replicate transects have no effect on humidity. For further details on models, see Harrap et al. (2020) and the code attached to the datafiles of this publication (Harrap et al., 2021). For AIC tables pertaining to humidity structure model selection, see supplementary materials and methods 1.

| Artificial Flower Type | Flower variant | Best fitting model for the $x$ axis | Best fitting model for the $z$ axis | $X_t^{max}$ | $\Delta RH_x^{max}$ |
|------------------------|----------------|------------------------------------|------------------------------------|-------------|---------------------|
| Active                 | Humid          | m3Q                                | z1L                                | 2.19        | 3.08                |
|                        | Dry            | m10Q                               | z4L                                | -0.12        | 0.92                |
| Passive                | Humid          | m9Q                                | z3L                                | 0           | 3.49                |
|                        | Dry            | m10Q                               | z4L                                | -0.61        | 2.13                |
Table S2. The parameter values of the best fitting models of both x and z axis models from our analysis of humidity structure of each variant of each artificial flower type. Parameters are identified by the R model fixed effect labels as used in the code attached to the datafiles of this publication (Harrap et al., 2021), column 'R', and the parameter names given for the equivalent parameters in Harrap et al. (2020), column ID, to facilitate comparison. For further detail on parameters of models and parameter function consult Harrap et al. (2020, 2021). All values are given in scientific format ($gEx = g \cdot 10^x$).

| Flower type | Flower Variant | Active flowers | Passive flowers |
|-------------|----------------|----------------|-----------------|
|             |                | Humid | Dry | Humid | Dry |
| ID          | R              |       |     |       |     |
| l_x         | (intercept)    | 3.07 E+00 | 9.25 E-01 | 3.49 E+00 | 2.13 E+00 |
| A_x         | xoffset        | 1.48 E-02 | -2.96 E-04 |     |     |
| B_x         | x2             | -3.38 E-03 | -1.26 E-03 | -4.05 E-03 | -2.85 E-03 |
| r_2x        | rep1           | -8.52 E-01 |     | -1.01 E-01 | -4.89 E-01 |
| r_3x        | rep2           | -8.52 E-01 |     | -6.91 E-01 | -9.35 E-01 |
| r_4x        | rep3           | -9.34 E-01 |     | -9.11 E-01 | -1.28 E+00 |
| g_2x        | xoffset:rep1   | -2.64 E-03 |     | -2.24 E-03 |     |
| g_3x        | xoffset:rep2   | -1.98 E-03 |     | -2.26 E-03 |     |
| g_4x        | xoffset:rep3   | -2.23 E-03 |     | -1.40 E-03 |     |
| c_2x        | x2:rep1        | 1.06 E-03 |     | 3.17 E-04 | 7.83 E-04 |
| c_3x        | x2:rep2        | 1.18 E-03 |     | 1.16 E-03 | 1.60 E-03 |
| c_4x        | x2:rep3        | 1.20 E-03 |     | 1.51 E-03 | 1.92 E-03 |
| l_z         | (intercept)    | 2.01 E+00 | 4.04 E-01 | 1.27 E+00 | 9.39 E-01 |
| B_z         | lnzoffset      | -5.50 E-01 | -1.12 E-01 | -3.86 E-01 | -3.16 E-01 |
| r_2z        | rep1           | -5.87 E-01 |     | 1.17 E-01 | -2.32 E-01 |
| r_3z        | rep2           | -5.89 E-01 |     | 1.93 E-01 | -3.68 E-01 |
| r_4z        | rep3           | -5.96 E-01 |     | 2.17 E-01 | -7.36 E-01 |
| c_2z        | lnzoffset:rep1 | 1.76 E-01 |     | 1.09 E-01 |     |
| c_3z        | lnzoffset:rep2 | 2.01 E-01 |     | 1.97 E-01 |     |
| c_4z        | lnzoffset:rep3 | 1.71 E-01 |     | 2.87 E-01 |     |
Table S3. AIC tables and sampling dates of artificial flower floral humidity analyses

For each individual artificial flower of each variant the date and time at which the first x axis transect replicate began is given (YYYY-MM-DD-hh-mm-ss). In each AIC table, each species having one for x and z axis models, AIC and degrees of freedom ‘df’ are given: see (Harrap et al., 2020) for description of the different models. Difference in ΔAIC, here calculated as AIC of model with the lowest AIC minus that of the current model, is also provided. Within each AIC table, shaded and in bold are the best fitting models as per the guidelines given in (Richards, 2008).

### Active Humid

| X axis model | df | AIC      | ΔAIC |
|--------------|----|----------|------|
| m3           | 5  | 1114.88  | 0.00 |
| m7           | 8  | 1119.73  | -4.85|
| m10          | 14 | 1127.27  | -12.39|
| m2           | 4  | 1151.32  | -36.44|
| m6           | 7  | 1156.27  | -41.39|
| m9           | 10 | 1158.71  | -43.82|
| m1           | 4  | 1473.78  | -358.90|
| m5           | 7  | 1479.30  | -364.42|
| m8           | 10 | 1485.08  | -370.20|
| m0           | 3  | 1488.09  | -373.21|
| m4           | 6  | 1493.63  | -378.75|

### Z axis model

| df | AIC      | ΔAIC |
|----|----------|------|
| 1  | 92.09    | -5.42|
| 10 | 95.24    | -8.57|
| 3  | 233.29   | -146.62|
| 6  | 239.03   | -152.36|

### Sampling dates

- 2017-11-16-11-08-52
- 2017-11-16-12-26-15
- 2017-11-16-13-43-38
- 2017-11-16-15-01-05
- 2018-02-01-11-54-27
- 2018-02-01-10-37-04
- 2018-02-01-13-11-52
- 2018-02-01-14-29-17

### Active Dry

| X axis model | df | AIC      | ΔAIC |
|--------------|----|----------|------|
| m10          | 14 | -29.10   | 0.00 |
| m9           | 10 | -22.24   | -6.85|
| m7           | 8  | 126.84   | -155.94|
| m6           | 7  | 132.75   | -161.84|
| m5           | 7  | 205.87   | -234.96|
| m8           | 10 | 210.19   | -239.28|
| m4           | 6  | 210.35   | -239.45|
| m3           | 5  | 314.15   | -343.25|
| m2           | 4  | 317.09   | -346.18|
| m1           | 4  | 384.45   | -393.55|
| m0           | 3  | 366.80   | -395.90|

### Z axis model

| df | AIC      | ΔAIC |
|----|----------|------|
| 10 | -347.76  | 0.00 |
| 7  | -312.58  | -35.18|
| 6  | -310.97  | -36.78|
| 4  | -279.22  | -68.53|
| 3  | -278.31  | -69.44|

### Sampling dates

- 2017-11-20-15-10-07
- 2017-11-20-16-27-30
- 2017-11-20-17-44-55
- 2017-11-20-19-02-19
- 2018-01-30-10-35-56
- 2018-01-30-11-53-23
- 2018-01-30-13-10-46
- 2018-01-30-14-28-06
### Passive Humid

| X axis model | df  | AIC    | ΔAIC  |
|--------------|-----|--------|-------|
| m9           | 10  | 1208.27| 0.00  |
| m10          | 14  | 1214.90| -6.62 |
| m6           | 7   | 1260.35| -52.08|
| m7           | 8   | 1261.82| -53.54|
| m2           | 4   | 1296.20| -89.93|
| m3           | 5   | 1299.70| -91.43|
| m4           | 6   | 2047.90| -839.63|
| m5           | 7   | 2049.75| -841.48|
| m0           | 3   | 2054.29| -846.01|
| m8           | 10  | 2055.56| -847.28|
| m1           | 4   | 2056.14| -847.87|

| Z axis model | df  | AIC    | ΔAIC  |
|--------------|-----|--------|-------|
| z4           | 10  | -125.11| 0.00  |
| z3           | 7   | -122.95| -2.15 |
| z1           | 4   | -76.13 | -48.98|
| z2           | 6   | 111.83 | -236.74|
| z0           | 3   | 129.54 | -254.64|

Sampling dates
2017-10-03-10-34-17
2017-10-03-10-09-02
2017-10-04-10-58-13
2017-10-04-12-15-36
2017-10-05-11-36-06
2017-10-05-14-10-52
2017-10-10-13-23-13
2017-10-10-14-40-36
2017-10-23-12-10-47
2017-10-23-13-28-10
2017-10-24-17-19
2017-10-24-12-52-05

### Passive Dry

| X axis model | df  | AIC    | ΔAIC  |
|--------------|-----|--------|-------|
| m10          | 14  | 872.95 | 0.00  |
| m9           | 10  | 890.60 | -17.65|
| m7           | 8   | 1001.48| -128.54|
| m6           | 7   | 1019.29| -146.34|
| m3           | 5   | 1102.00| -229.05|
| m2           | 4   | 1116.68| -243.74|
| m5           | 7   | 1468.42| -595.48|
| m8           | 10  | 1474.10| -601.16|
| m4           | 6   | 1475.71| -602.76|
| m1           | 4   | 1514.24| -641.29|
| m0           | 3   | 1520.78| -647.83|

| Z axis model | df  | AIC    | ΔAIC  |
|--------------|-----|--------|-------|
| z4           | 10  | -156.34| 0.00  |
| z3           | 7   | -131.26| -25.08|
| z1           | 4   | -103.48| -52.86|
| z2           | 6   | -67.79 | -88.56|
| z0           | 3   | -46.80 | -109.54|

Sampling dates
2017-10-03-11-51-40
2017-10-03-14-26-27
2017-10-04-13-32-59
2017-10-04-14-50-22
2017-10-05-10-18-43
2017-10-05-12-53-29
2017-10-10-10-48-25
2017-10-10-12-05-48
2017-10-23-10-53-22
2017-10-23-14-45-33
2017-10-24-11-34-42
2017-10-24-14-09-28
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