

Table 1: Table summarising success of used technologies, with colours representing a degree of reliability: Failure Partial failure Correct function.

| Flight                  | FIK-1                      | FIK-2                          | FIK-3                                 | FIK-4                                   | FIK-5   | FIK-6   | FIK-9  |
|-------------------------|----------------------------|--------------------------------|---------------------------------------|---|---|---|--|
| Location (year)         | CZ (2015)                  | CZ (2017)                      | CZ (2018)                             | SE (2019)                               | CZ (2019)                                     | CZ (2020)   | CZ (2023)  |
| Payload                 | Candy detector, Web camera | Candy detector, Web camera     | AIRDOS, 360 deg camera                | AIRDOS-C CRY19, SPACEDOS, G-M, Socrat-R | AIRDOS-C CRY19, SPACEDOS, G-M, 360 deg camera | AIRDOS-C Nal(Tl), SPACEDOS, G-M, lonmeter, 360 deg camera | AIRDOS04 Prototype, LABDOS01B, LABDOS01A, PiTED, MiniPIX, TFHT01 |
| Landing site            | vineyard Austria           | rapeseed field                 | Poland                                | swamp (Finland)                         | forest  | railway corridor  | Near high voltage substation                                     |
| Power source            | Li-ion 18650 accu          | Li-ion 18650 and li-pol accu   | Lithium primary cells and li-pol accu | Lithium primary cells                   | Lithium primary cells                         | Li-ion 18650 accu   | Li-ion 18650 accu  |
| Telemetry system        | GSM                        | GSM, 868 MHz Proprietary Modem | SigFox, 868 MHz Proprietary Modem     | Outsourced                              | LoRa, SigFox, SiK 433 MHz                     | 2x LoRa, SiK 433 MHz                                      | 868 MHz LoRa, SiK 433 MHz  |
| Rescue beacon           | 433 MHz CW                 | 433 MHz CW                     | 433 MHz CW                            | Outsourced                              | 433 MHz CW                                    | 433 MHz CW  | 433 MHz CW   |
| Flight control computer | Odroid-U2                  | Odroid-U2                      | Not used                              | Not used/outsourced                     | PX4, FMU v5                                   | PX4, FMU v5   | PX4, FMU v5, TF-ATMON  |