System config file schema (system\_config.JSON) – includes system, birds, and motion/moths

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| --- | --- | --- | --- | --- | --- |
| Variable | Category | Sub-category | Format | Description | Default |
| lat | location | Metadata variables | numeric | Latitude of location of AMI trap | 51.754845 (Oxford latitude) |
| lon | location | Metadata variables | numeric | Longitude of location of AMI trap | -1.254449 (Oxford longitude) |
| LID | system | Metadata variables (used in filename) | string | A unique ID identifier for the survey location (“LID\_” followed by a unique number). This identifier can be matched with the location metadata. | "LID\_test" |
| SID | system | Metadata variables (used in filename) | string | The unique identifier for each AMI trap system (“SID\_” followed by a unique number). This identifier can be matched with the system metadata. | "SID\_test" |
| interval | birds | Scheduling | numeric | Frequency of recordings (minutes) e.g. 5 means record every 5 minutes | 5 |
| sunrise:start | birds | Scheduling | time/string | How long before sunrise should 1st recording start? (Time hours:minutes:seconds) | "01::00::00" |
| sunrise:end | birds | Scheduling | time/string | How long after sunrise should last recording end? (Time hours:minutes:seconds) | "02::00::00" |
| sunset:start | birds | Scheduling | time/string | How long before sunset should 1st recording start? (Time hours:minutes:seconds) | "01::00::00" |
| sunset:end | birds | Scheduling | time/string | How long after sunset should last recording end? (Time hours:minutes:seconds) | "01::00::00" |
| device\_name | birds | Recording variables (for arecord) | string | Recording device (mic) name. plughw:cardnumber,devicenumber (find these with arecord -l). | "plughw:1,0**"** |
| number\_of\_channels | birds | Recording variables (for arecord) | string\* | Number of channels. | "1" |
| duration | birds | Recording variables (for arecord) | string\* | Duration of recording (seconds). | "60" |
| sampling\_rate | birds | Recording variables (for arecord) | string\* | Sampling rate (Hertz). Need to be at least double the highest frequency bird call you want to sample. | "24000" |
| data\_format | birds | Recording variables (for arecord) | string | Data format. | "S32\_LE" |
| file\_type | birds | Recording variables (for arecord) | string | File type to save. | "wav" |
| recording\_type | birds | Recording variables (for arecord) | string | Recording type – mono or stereo. | "mono" |
| directory\_to\_save\_audio | birds | Saving data | string | Specify the directory where the audio files will be saved (saved onto the SSD called PiImages) | "/media/bird-pi/PiImages/BIRD/raw\_audio/" |
| HID | birds | Metadata variables (used in filename) | string | The unique identifier for the individual sensor (“HID\_” followed by a unique number). This identifier can be matched with the hardware metadata. | "HID\_test" |
| start | motion | Scheduling | time/string | How long after sunset to start moths/motion? | "01::00::00" |
| end | motion | Scheduling | time/string | How long before sunrise to end moths/motion? | "01::00::00" |
| days\_on | motion | Scheduling | time/string | How many days should recording run for at a time? | ? |
| time\_intervals | motion | Scheduling | time/string | What are the time intervals? | ? |

\*Can’t be number (has to be string of a number) due to the way arguments are passed to arecord using subprocess