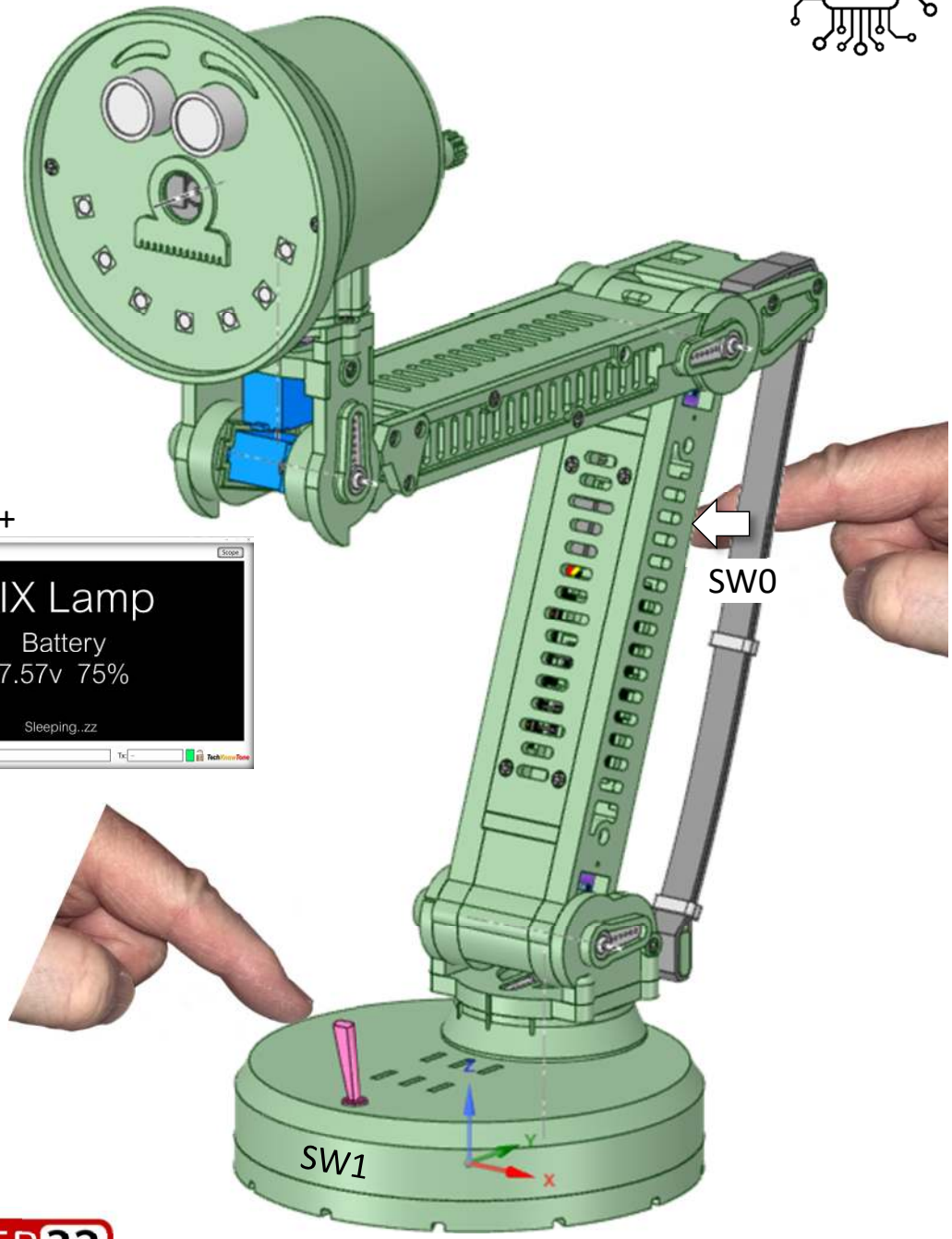
PIXAiR Lamp – overview



Monitor+

Tech:

- HuskyLens AI camera
- ESP32 microcontroller
- 5 x MG92B servo motors
- RCWL-1601 acoustic range finder
- 2.4GHz ESP-NOW wireless control
- 7 RGB LEDs – battery monitoring/motion
- 2 x 3.7v 3000mAh 18650 batteries
- 3-D printed construction

Features:

- Safe start, default benign desktop lamp function.
- Two switches control a range of functions.
- Auto-recognition of faces, objects, colours and tags.
- Communicates with Monitor+ app over Wi-Fi.
- Displays block recognition and ranging functions.
- Battery Low sensing with cut-off.
- ESP32 RESET button returns it to default mode.

Enhancements:

- Scope within coding.

In Use:

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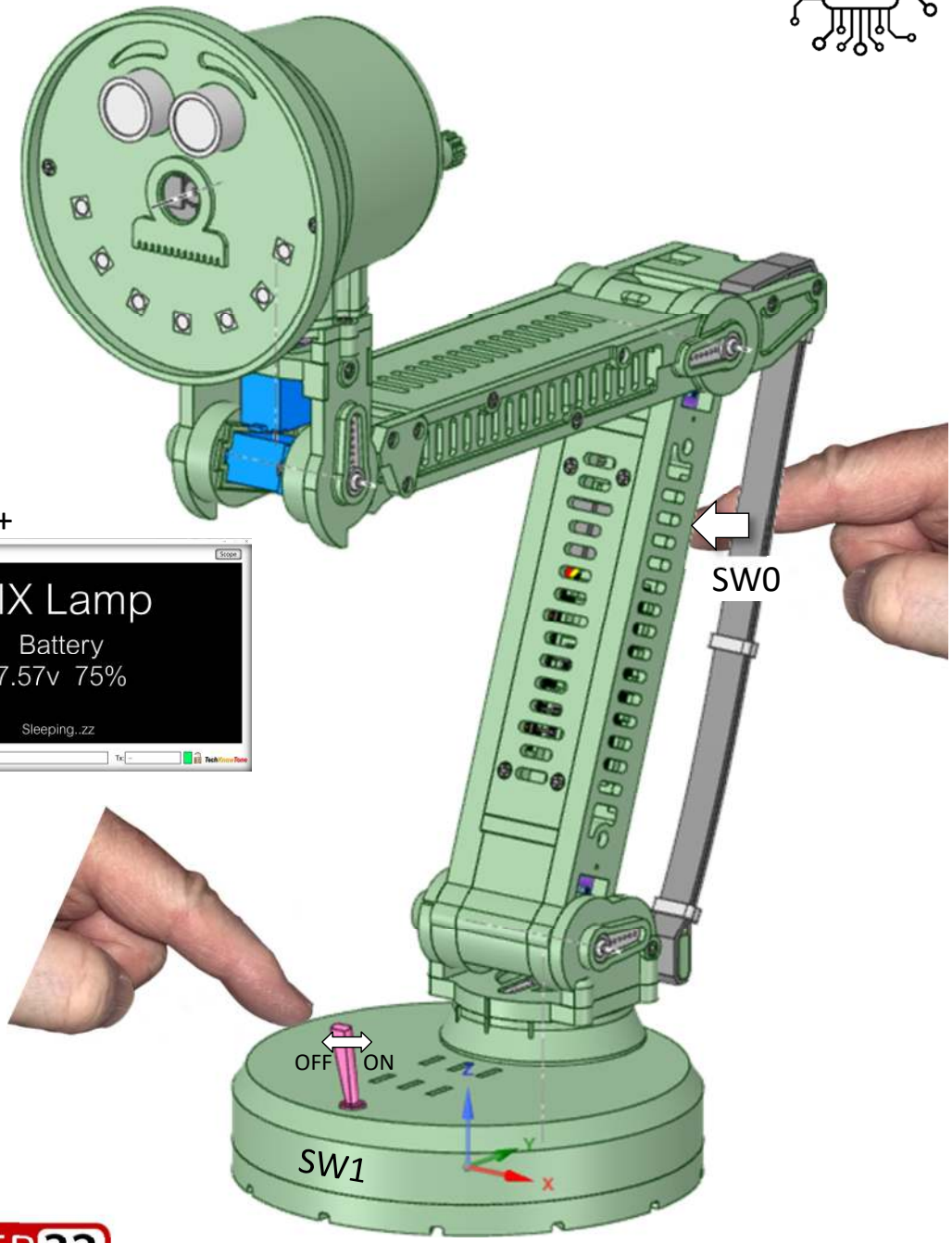
PIXAiR Lamp – button functions



Monitor+

Features:

- On boot the servos will be set to default positions.
- LED blink for battery monitoring.
- Toggle SW1:
  - Lamp OFF to ON.
  - ON-OFF-ON enters face tracking mode.
  - OFF whilst active, causes PIX to toggle SW1.
  - OFF-ON-OFF enters rest mode.
- Button SW0:
  - Long press, takes PIX to rest position.
  - 1(short) – switch to face recognition/tracking.
  - 1(short) + 1(long) – switch to 'Take Pix' mode
  - 2(short) – switch to colour (red) recognition/tracking.
  - 3(short) – switch to tag recognition/tracking.
- Monitor+:
  - Display battery status.
  - Displays block data from HuskyLens.
  - 'Chat' comments from PIX.
  - Controls internal flags and settings.
  - Displays/controls servo values.

Enhancements:

- Scope within coding.

In Use:

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