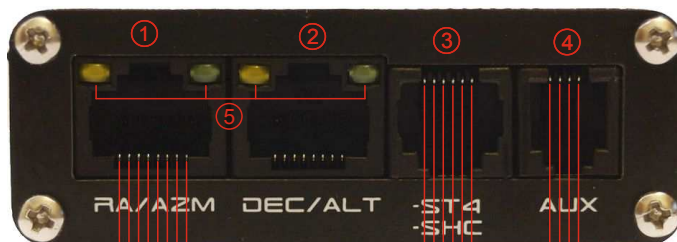# INSTEIN ONSTEP ESP32 DRIVE
INSTEIN.EU

⚠ Never connect or discconect motor cables while the drive is power on, this can damage stepper drivers and/or stepper motors.

⚠ Take care to pointing objects during lightday, the sun could cross your eyes throught the telescope optics and damage them, including permanent blindness.

⚠ Always power on the drive about 10 minutes before expose the system to dew conditions --> perform a enable-disable tracking cycle to maintain drive and motors powered and prevent dew condensation.

⚠ Use only flat RJ45 cables from drive to motors, standard round RJ45 cables has crossing wires that can reduce the system perfomance and trigger a safe stop with some stepper drivers.

⚠ Axis limits may not be properlly configured, take attention to slews and tracking, mobile parts could hit other ones.

SIDE PANELS

① SMA Bluetooth connector for male antenna output.
② SMA WiFI connector for male antenna output.
③ Micro USB COM port / flashing port, CP2102.
④ Firmware flashing mode switch.
⑤ DC Power in, 5,5x2,1mm, 24VDC MAX.
⑥ Power switch.
⑦ Power status led.

① RA / AZM Stepper motor output, 8 pin RJ45.
② DEC / ALT Stepper motor output, 8 pin RJ45.
③ ST4 Port / Hand Control input, RJ11 6P6C.
④ Aux serial port I/O, RJ9 4P4C.
⑤ Motor output status leds:
  - OFF: Standby
  - Yellow: Motor energized.
  - Green: Very quick flashing: Axis is tracking.
            Permanent: Axis is moving / guiding.

SAME FOR DEC / ALT
1-2: A
3-4: A\
5-6: B
7-8: B\

4: TX →
3: RX ←
2: GND
1: 5V DC Out →

6: RA+ (E) ←
5: DE+ (N) ←
4: DE- (S) ←
3: RA- (W) ←
2: GND
1: 5V DC Out →