

The diagram illustrates the wiring for a Teensy 4.1 microcontroller (U1) interfaced with a stepper motor driver. Key components and connections include:

- Teensy 4.1 (U1):** The central microcontroller with pins labeled U1 and Teensy4.1 -Lou.
- Stepper Motor Driver:** A driver board with pins for RX, TX, X-Step, X-Dir, Y-Step, Y-Dir, Z-Step, Z-Dir, A-Step, A-Dir, X-Enable, ENABLE, 3.3V\_I, B-Step, B-Dir, B-Step, Safety door, T\_DIN\_1, T\_AUX\_0, T\_AUX\_1, and various power and ground connections.
- Power Regulation:** A 5V regulator (3.3V to 5.5V VIN) and a 3.3V regulator (3.3V to GND) are shown, along with a 3.3V logic level converter (3.3V to GND).
- Stepper Motor:** The motor is connected to the driver's X, Y, Z, and A step and direction pins.
- Limit Switches:** Connections for X-Dir, Y-Dir, Z-Dir, and A-Dir are shown, along with a limit switch (X-Enable).
- Other Connections:** Connections for a 3.3V logic level converter (3.3V to GND), a 3.3V logic level converter (3.3V to GND), and a 3.3V logic level converter (3.3V to GND) are shown.

[illegible][illegible]

The diagram shows two connector blocks, CN5 and CN6, with their respective pin connections. CN5 is labeled 'DOOR' and has four pins: pin 2 is connected to 'Safety\_door' (green line), pin 1 is connected to '3.3V\_COM' (blue line), and pins 3 and 4 are unconnected. CN6 is labeled 'Controls' and has four pins: pin 4 is connected to 'Cyclestart' (green line), pin 3 is connected to 'feedhold' (blue line), pin 2 is connected to 'e-stop' (green line), and pin 1 is connected to '3.3V\_COM' (blue line). A red box highlights the pin headers for both connectors, and a red arrow points to the bottom of the CN5 header.

SW3  
SS-3268S-L1

Pin	Label
6	X_Step
5	X_STEP_C
4	A_AUX_STEP
3	X_Dir
2	X_DIR_C
1	A_AUX_DIR
12	Y_Step
11	Y_STEP_C
10	B_AUX_STEP
9	Y_Dir
8	Y_DIR_C
7	B_AUX_DIR