SWVL-Physical Gimbal

Endstop Pin

Camera

Tilt Carriage

Bearing

NEMA-8 Stepper Motor

Endstop Pin

3D-printed tilt axis riser

Tilt Axis Endstops

3D-printed tilt axis riser

3D-printed base for pan axis

Pin interrupts beam.

Pin interrupts beam.

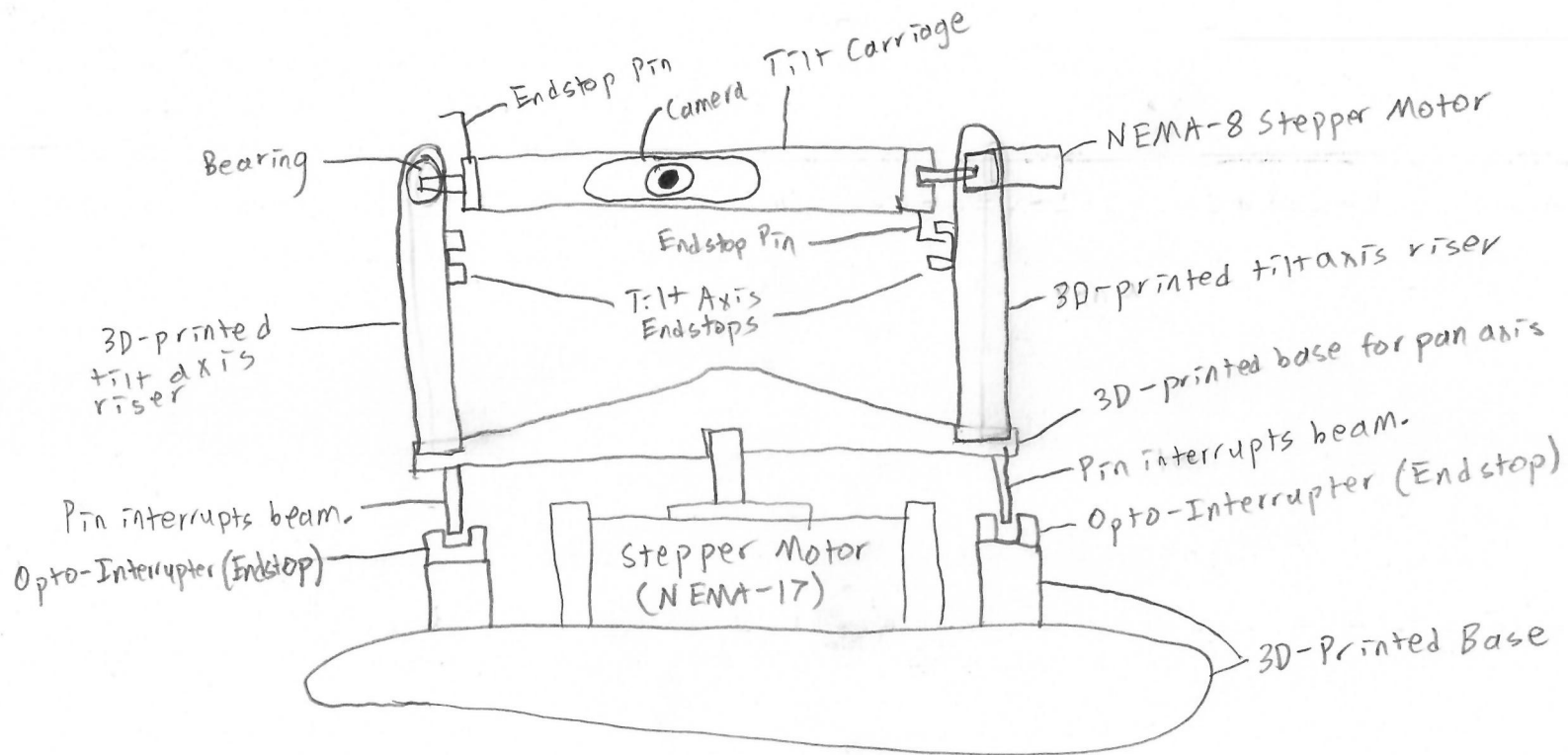Opto-Interrupter (Endstop)

Opto-Interrupter (Endstop)

Stepper Motor (NEMA-17)

3D-Printed Base

Need 2 opto-interrupters per axis
to prevent gimbal from rotating more
than 180°.

SWVL - Main Control UI

SWVL Control Panel

[Live Preview From Camera]

Face Tracking

[On]

Tracking Aggression
Relaxed   Aggressive
O   ◉

On Tracking Loss...
Stay in Place   Find Face
O   ◉

Reset Gimbal

Gesture Recognition

[On]

Track Multiple Subjects

[Off]

Gimbal Serial Port
COM3 ▼

Manual Control

See other drawing.

SWVL-Manual Control

Manual Control   — □ X

| Home Pan | Home Both | Home Tilt |

Save Position as Preset..

Move To Preset...

| Preset 1 | Preset 2 | Preset 3 |