JETSON NANO SURVEILLANCE

Jetson Nano Surveillance

Mechanical Structure // Housing

Power Regulation Electronics
5V Power Input

Vision / Sensor Input
Raspberry Pi 2 Camera

Jetson Nano Dev Kit
Single Board
Computer

Servo Motor DriverVariable
PWM / Timer

Motion Control
2x Servo Motor
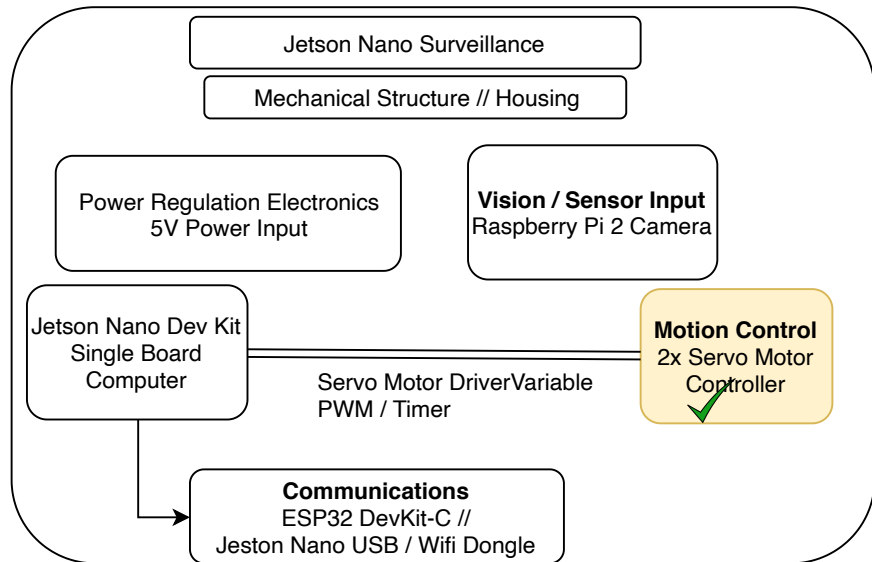Controller
✔

Communications
ESP32 DevKit-C //
Jeston Nano USB / Wifi Dongle

System Design

Mechanical Design

Electrical Design

Software Design

Cloud / Application
Design

Requirements Definition

Integration Instructions

Parts List // Bill of
Materials

Assembly, Integration
and Test Instructions

Electrical Schematic

Electrical Layout / PCB
Files

Software Development
Kit / Application Code

Web Interface /
Application Design

Requirements Definition
Detect Motion
Capture Images
Send Images to Server Via Wifi
Pan Rotate
Tilt Control
Flash IR / White Spotlight
Waterproof
Variable Focus (Option)

JNS - Bill of Materials

Electrical Schematic
Detect Motion
Capture Images
J41 Pin Header Pinout
https://www.jetsonhacks.com/nvidia-jetson-nano-j41-header-pinout/

Software Design
1) Detect Motion
2) Capture Images
3) Send Images to Server Via Wifi
4) GPIO Control -- Flash IR / White Spotlight
5) Pan Rotate + Tilt Control
PWM Controls https://forums.developer.nvidia.com/t/pwm-pins/107310/8