ADS

Autonomous Drink Shooter

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Product Goal and Description

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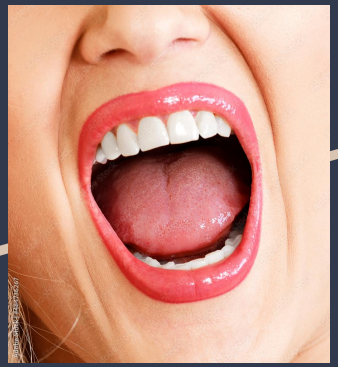

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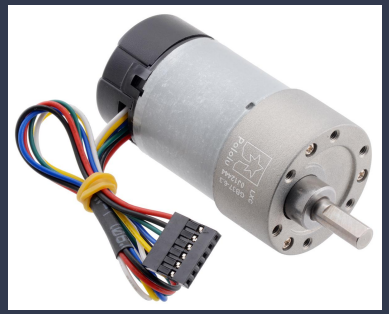
- *Innovate the party environment by combining modern design and technology*
- *Build a robot integrated with cameras that shoots out apple juice for people at the party*
- *It will be portable so you can take it wherever you want*
- *$1 per drink*

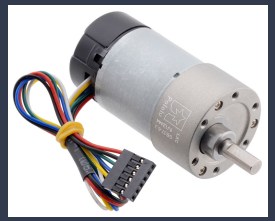
Essential Components

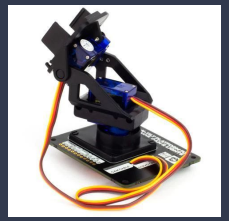


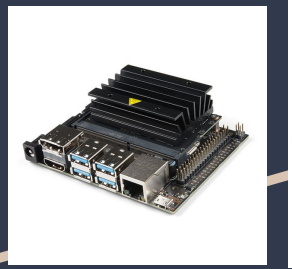
Mechanical Devices:

- Hxchen 2Pcs DC 3V 12A Mini Air Water Pump Motor
- Metal Gearmotor 37Dx65L mm 12V with 64 CPR Encoder
- 1 Belt-Pulley system to enable linear actuation to cover a wider field of view
- Atlantic Valve BCM-15 to control the flow of fluid

Essential Electrical & Software Components







DC Motor: x1

12V RC servos	12 V			Weight (g)	Size (mm)	Digi-tal?
	Max speed (sec/60°)	Stall torque (oz-in)				
i00600 Torxis Servo	1.0	3200		1070	140.8 × 61 × 118	✓

6.3:1 Metal Gearmotor 37Dx65L mm 12V with 64 CPR Encoder (Helical Pinion)

Servo Tilt Motor: x1

voltage	no-load performance	stall extrapolation
12 V	1600 RPM, 200 mA	3.0 kg·cm (42 oz·in), 5.5 A

i00600 Torxis Servo 1600 oz.in. 1.5 sec/90 deg

Analog Input: x2 Camera Sensor (DEV-18440)

Key Specification
Power supply: Normal: 5V/390mA, Low power mode: 5V/20mA
Active array size: 2592x1944
Shutter: rolling shutter
Lens: 1/4 inch
SPI speed: Max 8MHz
Resolution support: 5MP, 1080p, 720p, VGA, QVGA
Frame buffer: 512KB
Format support: RAW, YUV, RGB, JPEG
Pixel Size: 1.4μm x 1.4μm
Temperature: -10℃～+55℃

Digital Input: x1 Button

parameter	conditions/description	min	typ	max	units
rated voltage		1		12	Vdc
rated current		0.01		50	mA

TS04-66-50-BK-160-SMT

Microcontroller: x1 NVIDIA Jetson Nano

Mechanical Configuration & Designs