Robolena

Antropomorpher Roboterkopf mit Computervision unterstützer Verhaltenssimulation.



Aufbau

BOM

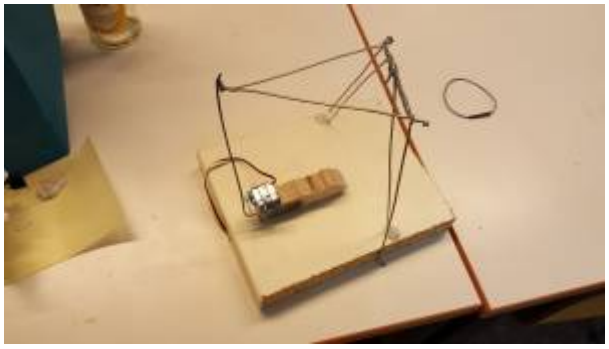
- 6 9g Servo-Motoren für die Stewart-Platform
- 2 9g Servo-Motoren für die Augenbrauen
- 2 8×8 Dot-Matrix-Displays
- 1 Raspberry Pi
- 1 Raspberry Pi Kamera Modul
- 1 extra langes Kamera Modul Flachband Kabel
- 2 Microwordclock-PCBs
- 24 Neodym Stabmagnete 5x8mm
- 12 Stahlkugeln (alternativ Kugelmagnete) 5mm
- ˜20m 2mm Stahldraht

Augen

2 Microwordclock Module: https://github.com/formatc1702/Micro-Word-Clock/tree/master/v2

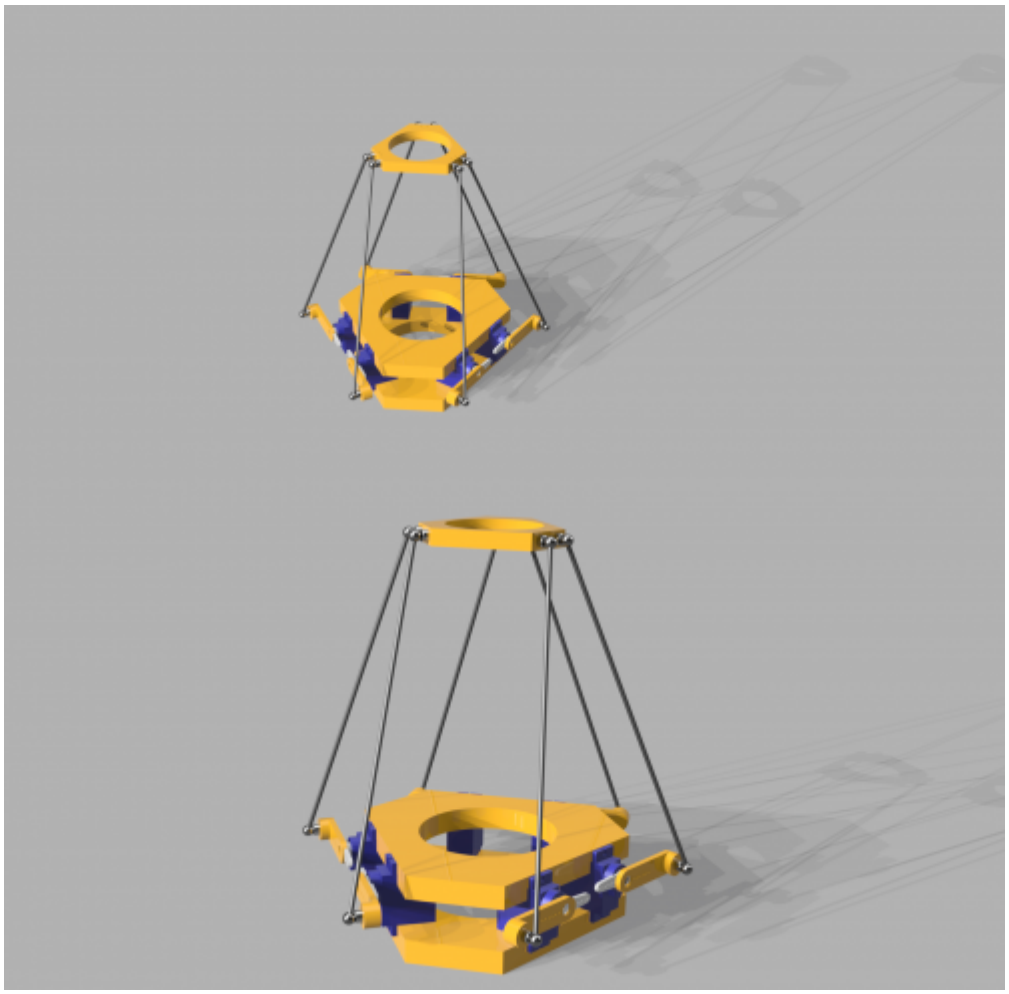
Hals

1. Draht-Prototyp



Stewart-Platform

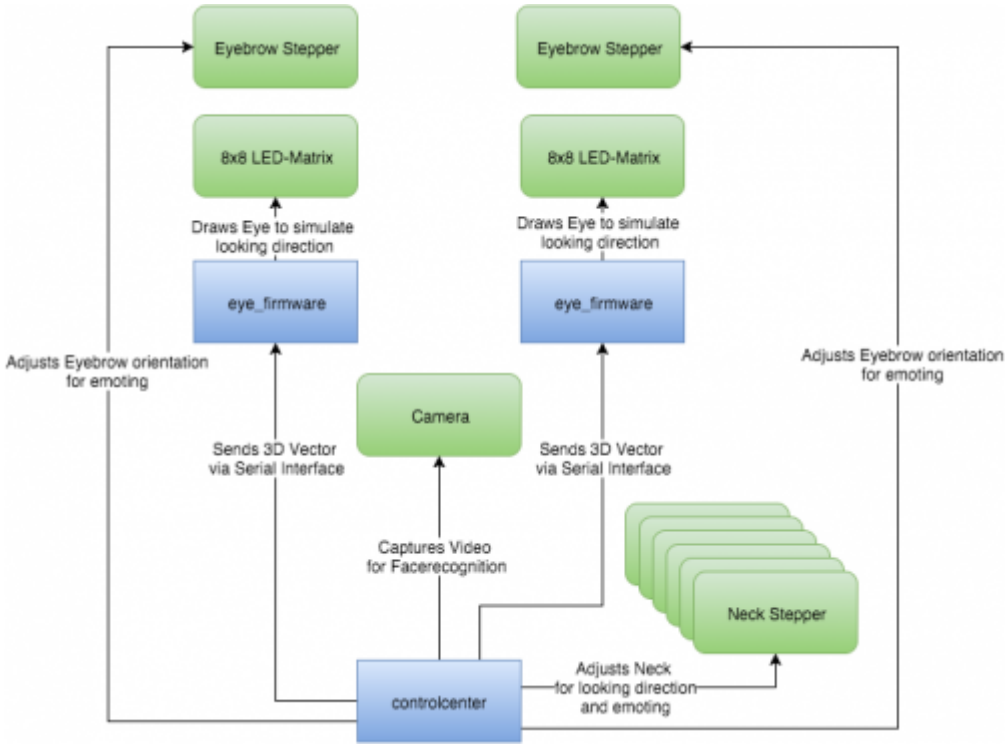
6DOF System auf Basis einer Stewart-Platform. Die Ansteuerung der 6 Servo-Motoren funktioniert via Arduino mit Motorshield.



https://github.com/mostley/robolena/tree/master/hardware

Software

https://github.com/mostley/robolena/tree/master/software


Eyebrow Stepper
Eyebrow Stepper
8x8 LED-Matrix
8x8 LED-Matrix
Draws Eye to simulate looking direction
Draws Eye to simulate looking direction
eye_firmware
eye_firmware
Adjusts Eyebrow orientation for emoting
Adjusts Eyebrow orientation for emoting
Camera
Sends 3D Vector via Serial Interface
Sends 3D Vector via Serial Interface
Captures Video for Facerecognition
Neck Stepper
controlcenter
Adjusts Neck for looking direction and emoting