1 What does ‘good’ or ‘poor’ motor control look like?

Notes:

2 Video analysis

How would you rank each individual’s motor control?

GOOD  POOR

What factors influenced your rankings?

+ Signs of Good Control  - Signs of Poor Control

? Questions...  ! Ideas...
3 Synergy basics

**Definition:** coordinated patterns of muscle activity that flexibly combine to produce functional motor behaviors (Ting et al. 2015, Neuron)

**Notes:**

![Synergies in Cerebral Palsy](image)

**4 Explore further!**

**Recommended articles:**

Cheung et al. (2012) PNAS

"Muscle synergy patterns as physiological markers of motor cortical damage"

Dominici et al. (2011) Science

"Locomotor primitives in newborn babies and their development"

Ting et al. (2015) Neuron

"Neuromechanical principles underlying movement modularity and their implications for rehabilitation"

**Try it yourself:** Interactive Matlab tutorial created by Lena Ting:

[https://neurolab.gatech.edu/labs/ting/neuromechanics-tools/matlab-tutorial](https://neurolab.gatech.edu/labs/ting/neuromechanics-tools/matlab-tutorial)

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