

Gait Analysis

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STEM Engineering 2°

Predictive Model (height in cm)

Height in cm = $\text{trunc}(\text{distance travelled}(\text{number of strides}/5)\text{average length of stride}*2.8,0)$

183 cm person: 184, 184, 184, 185, 185, 186 (+3, 1.6%)

178 cm person: 189, 190, 190, 190, 190, 191 (+13, 7.3%)

175 cm person: 170, 170, 170, 171, 171, 171 (-4, 2.2%)

157 cm person: 145, 145, 145, 145, 146, 146 (-8, 5.1%)

How it Works



Based on assumption → taller = longer stride length

Multiplied by other distance related data points, creates more unique number

Constant helps achieve accuracy