

Pinocchio

Written by Lior

Tuesday, 22 February 2011 23:38 - Last Updated Tuesday, 22 February 2011 23:54

This is a biped robot that I build after being inspired by the Sony dream robot. I also build a simulator for it that I can check different gait functions (walking functions). Right now it only dose static walking but I am working on dynamic walking. It uses the mini robomind 25 MHZ MC68332 cpu and Hitec servos. I entered 2001 [rssc](#) Talent Show and got third place.



{youtube}FgXuWw_cqeU{/youtube}

{youtube}JdyhhLW77bc{/youtube}

{youtube}iRdDKi9nxUA{/youtube}

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{gallery}Robots/Pinocchio{/gallery}

This is the first version of the robot. It never moved because the servo did not have sufficient power, so I had to rebuild it. However, this page shows how the metal was being cut and shaped. I used AutoCAD mechanical desktop with dynamic designer 2000 to design and simulate the biped.

[AutoCAD File](#)



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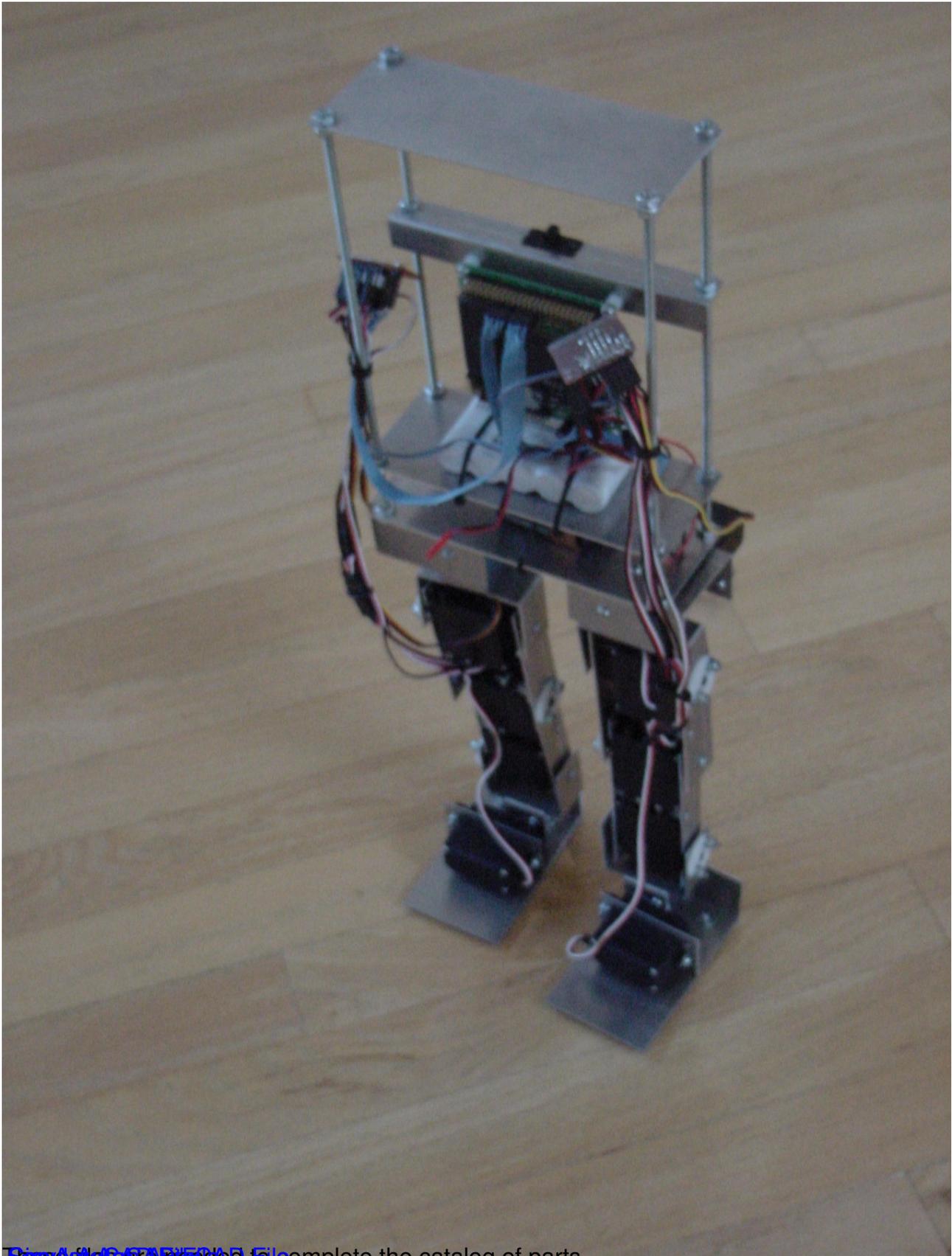
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This version was a success

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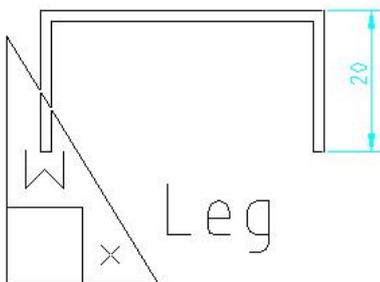
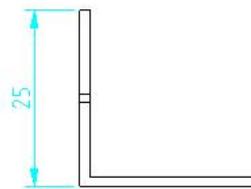
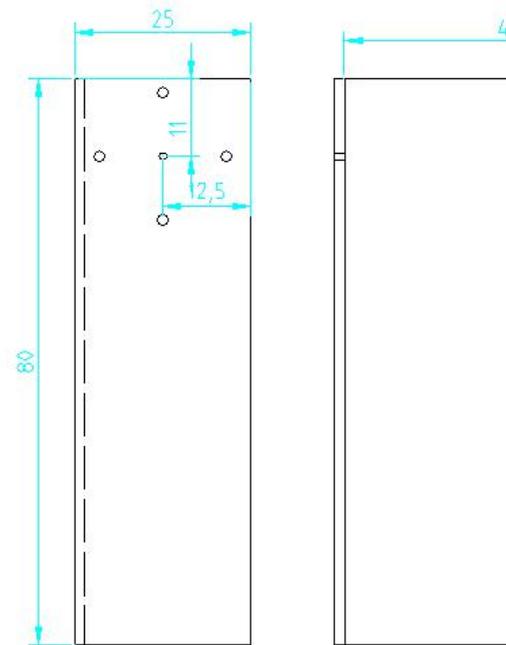
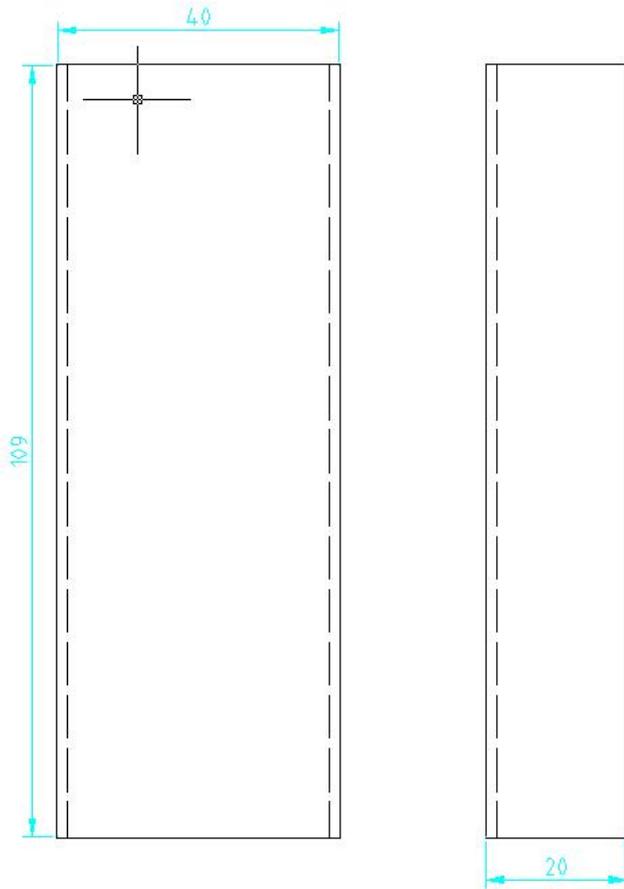


[Download the CAD files](#) to complete the catalog of parts

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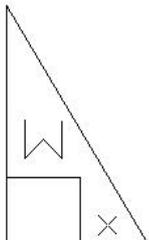
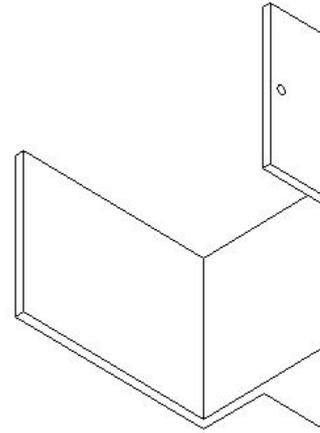
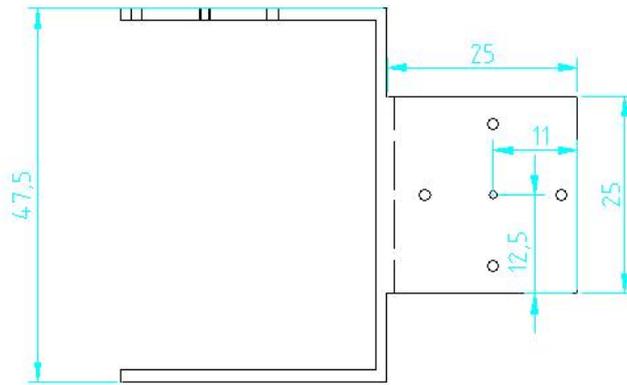
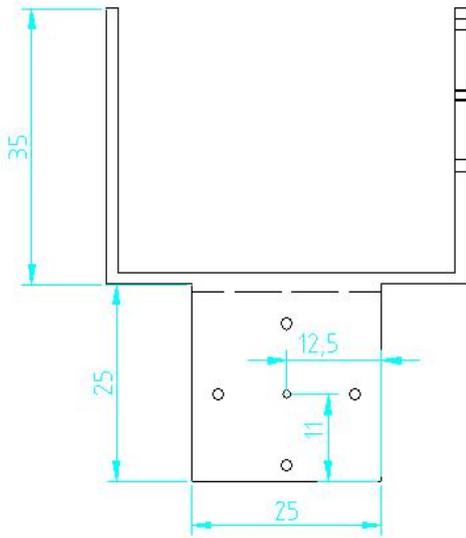
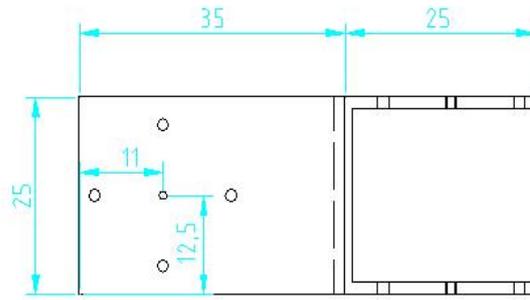
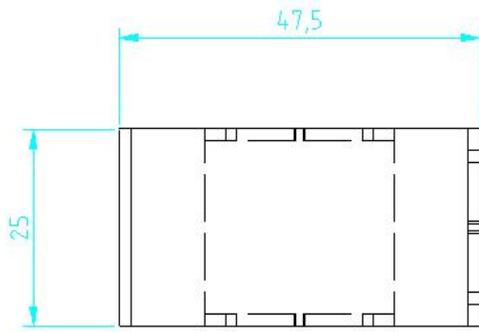


Hip

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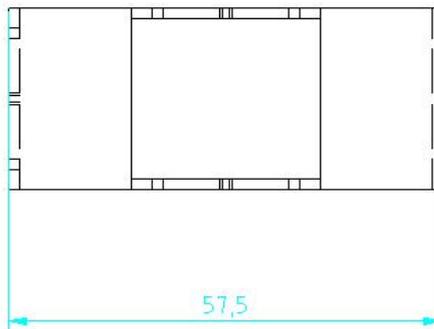
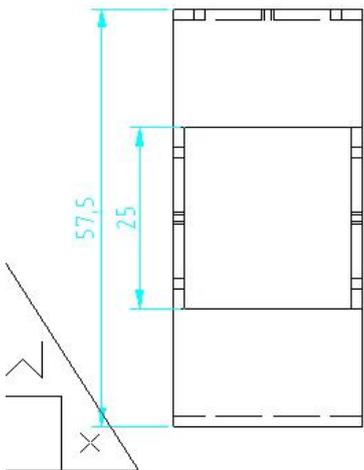
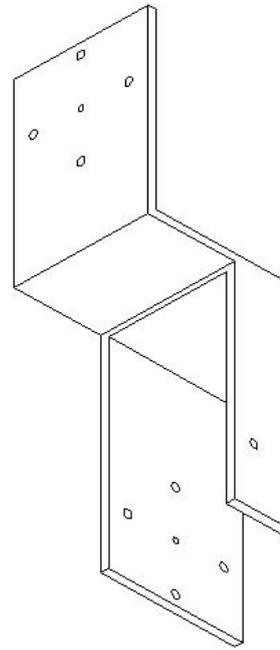
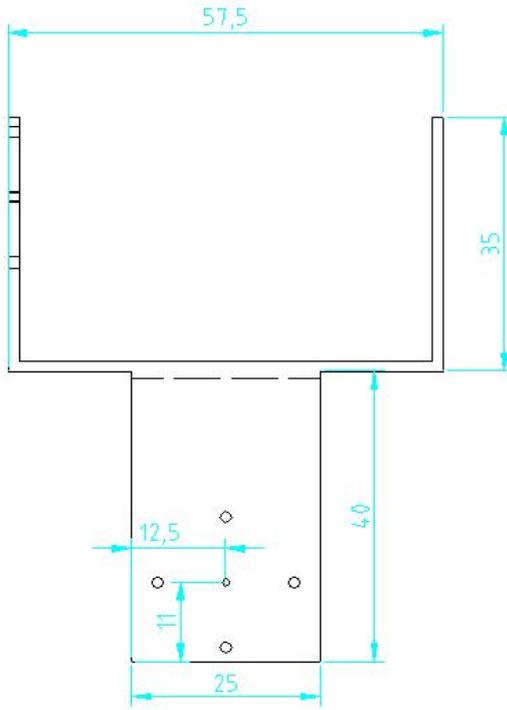
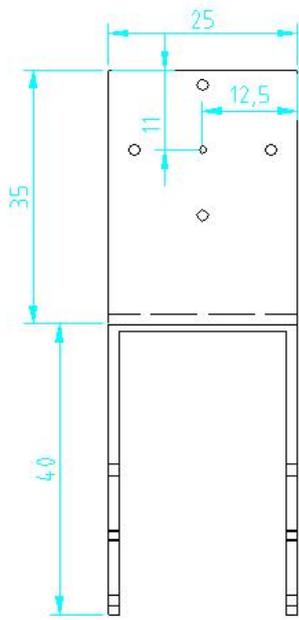


Ankle Joint

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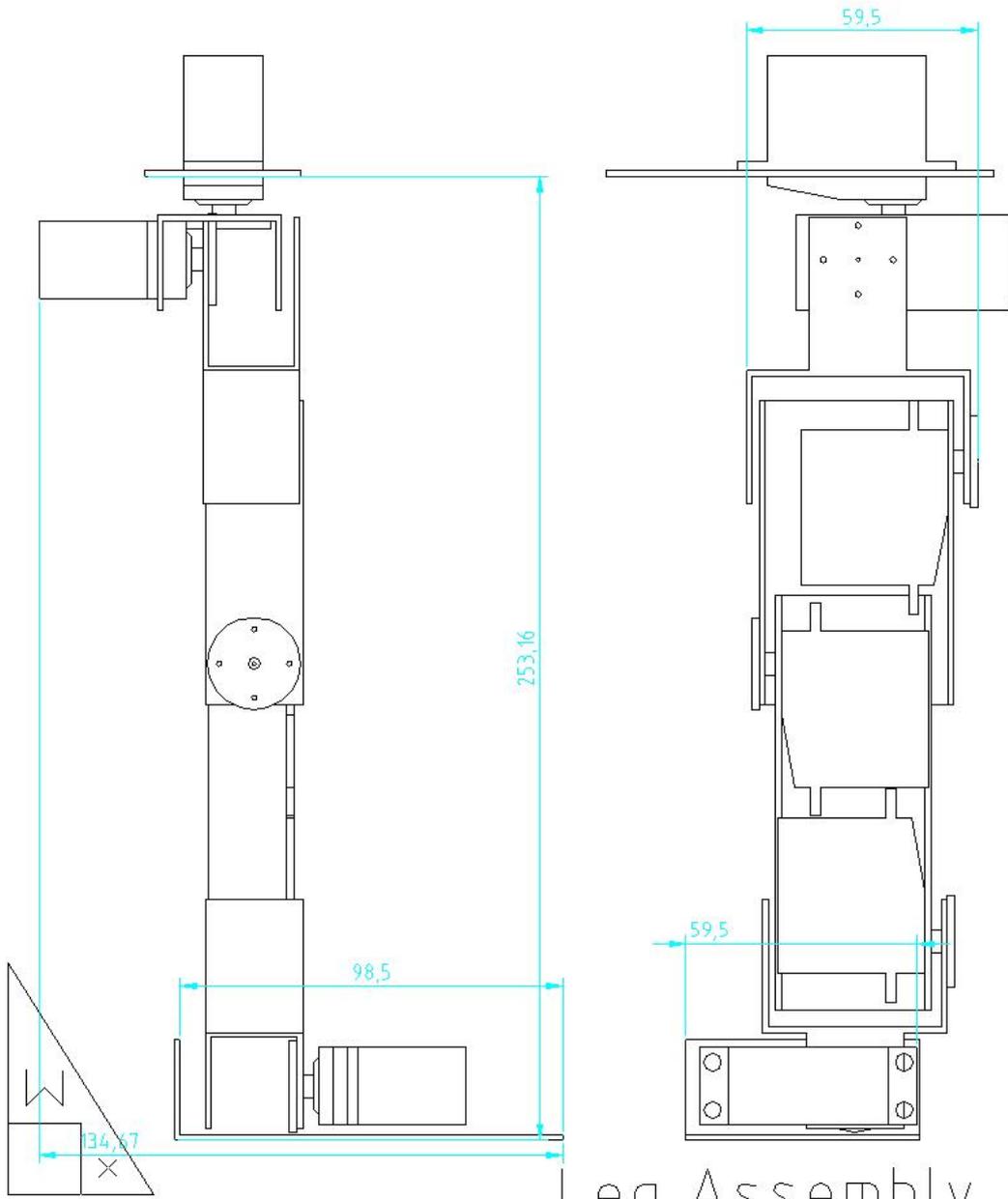


TURSO

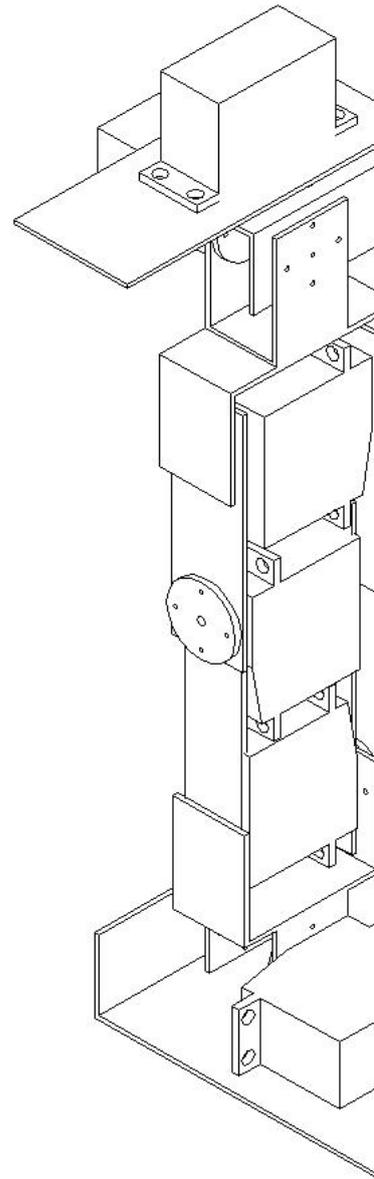
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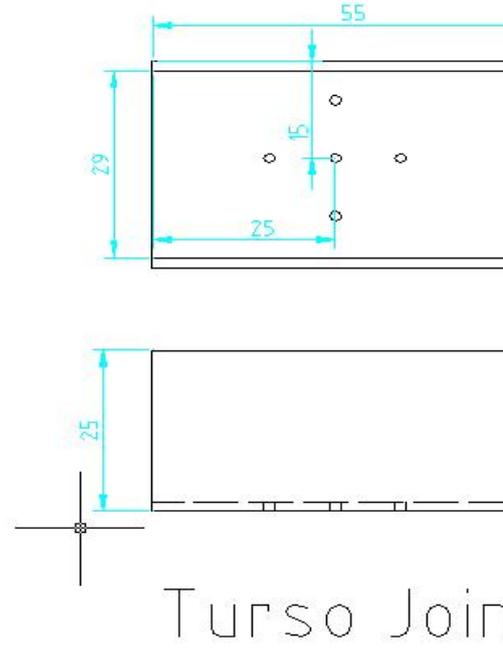
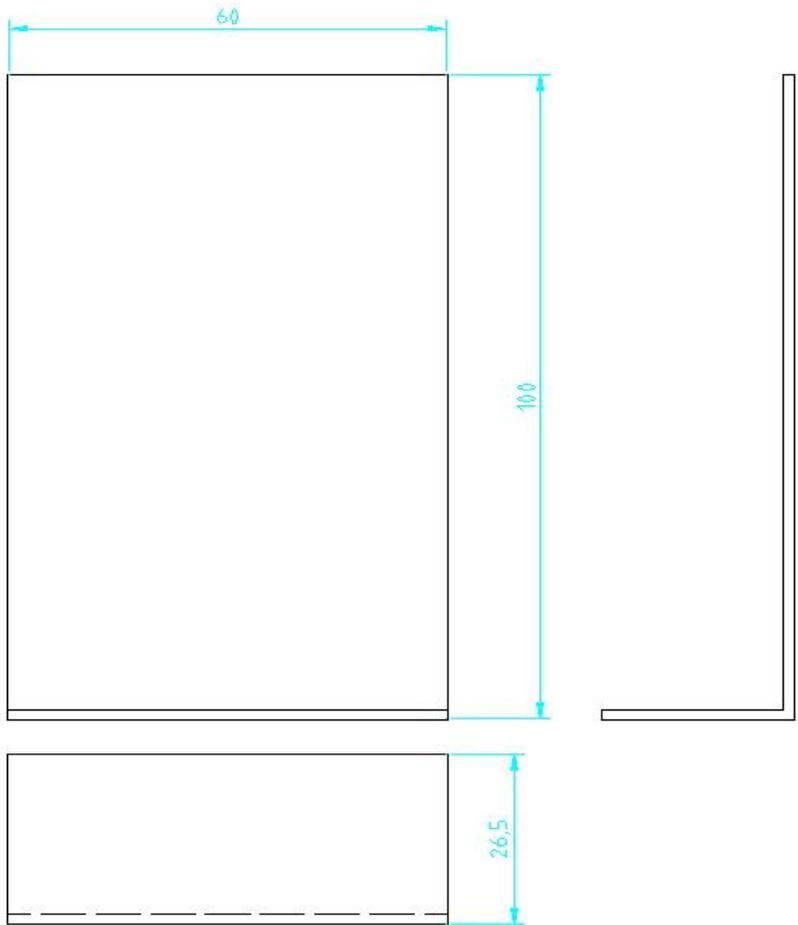
Leg Assembly



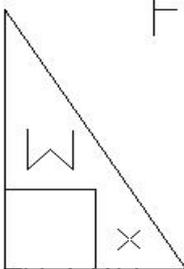
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Foot



Screenshot of the Gait Sim software interface. The window title is "Gait Sim". It features a central plot area with a graph showing a blue line and a red line. Below the plot is a "Leg Controls" panel with various sliders and buttons for adjusting parameters like "Left Hip Angle", "Right Hip Angle", "Left Nee Angle", "Right Nee Angle", "Left Feet Angle", "Right Feet Angle", "Left Hip R", "Right Hip R", "Left Feet R", and "Right Feet R". There are also "Sim Param" settings, a "Timer" set to 16, and buttons for "Stand", "Record", "Show Record", "Run", "Save", "Snap", "Reset", "OpenFile", and "See File".

[Rebuild Program](#)