



**TRAMA**



*TR*Aining in  
*M*otion *A*nalysis



**Start up meeting  
TRAMA Project**

**May 11th 2007**

**Colegio Mayor Universidad del Rosario  
COLOMBIA**

*Juan Alberto CASTILLO M. PhD*



2007





colombia



*Bogota*



*The Colegio Mayor de  
Nuestra Señora del Rosario*

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# Introduction

*The Colegio Mayor de Nuestra Señora del Rosario is composed by the school, college and the University campus.*

*The university programs are constituted by nine Faculties: Law science, Medicine, Rehabilitation and Human Development, Economics science, Political Science and International Relations, High Studies of Administration and Business, Human Sciences and the Office of extended studies.*

*The students population is 9000 aprox.*

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# Introduction

## *Rehabilitation and human development program*

***Rosario University is encourage with the highest quality education and research process required to graduate professionals (bachelor's degree) in the areas of Physical Therapy, Occupational Therapy and Speech Therapy, according whit the international education standards and entry level professionals skills established by each one of World Confederations of those disciplines.***

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# Introduction

## *Rehabilitation and human development program*

The faculty the rehabilitation and human development, is composed by three program :

physical therapy, occupational therapy and speech therapy,

also count with three research groups:

physical exercise,

disable rehabilitation, and

health, work and cognition.



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May 11<sup>th</sup> 2007



We have a movement analysis laboratory  
which is used in the work activity field,  
the research team is composed by a group of physical therapists with  
experience in neurological and orthopaedic rehabilitation, risk  
prevention at work, manual therapy and epidemiology,  
this lab works associated with the physiology exercise lab

[http://www.urosario.edu.co/FASE1/rehabilitacion/invesconsul\\_05.htm](http://www.urosario.edu.co/FASE1/rehabilitacion/invesconsul_05.htm)

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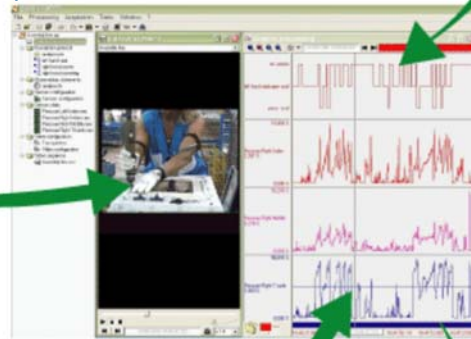
### Movement –activity analysis

Duration time, work cycle, frequency, repetitive motion, range of gestures, posture and movement.

### Video recording



Enable to collect images (four points)



### Sensors



### Telemetry

Datalog, EMG, Goniometer, Accelerometer, Skin temperature sensor, Gyroscope, inclinometer, force-pressure sensor



### Multimedia Reports

Technical reports, data processing using graphics, statistical and video sequences



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Main activities and main specializations of Institution and/or Motion Analysis Lab

## Research projects.

*Work related muscle-skeletal injuries.( due to repetitive strain, Low back disorders and physical load demanding)*

## Applied studies :

*\* Study of muscle- skeletal injuries in a vehicle assembler Colombian company.*

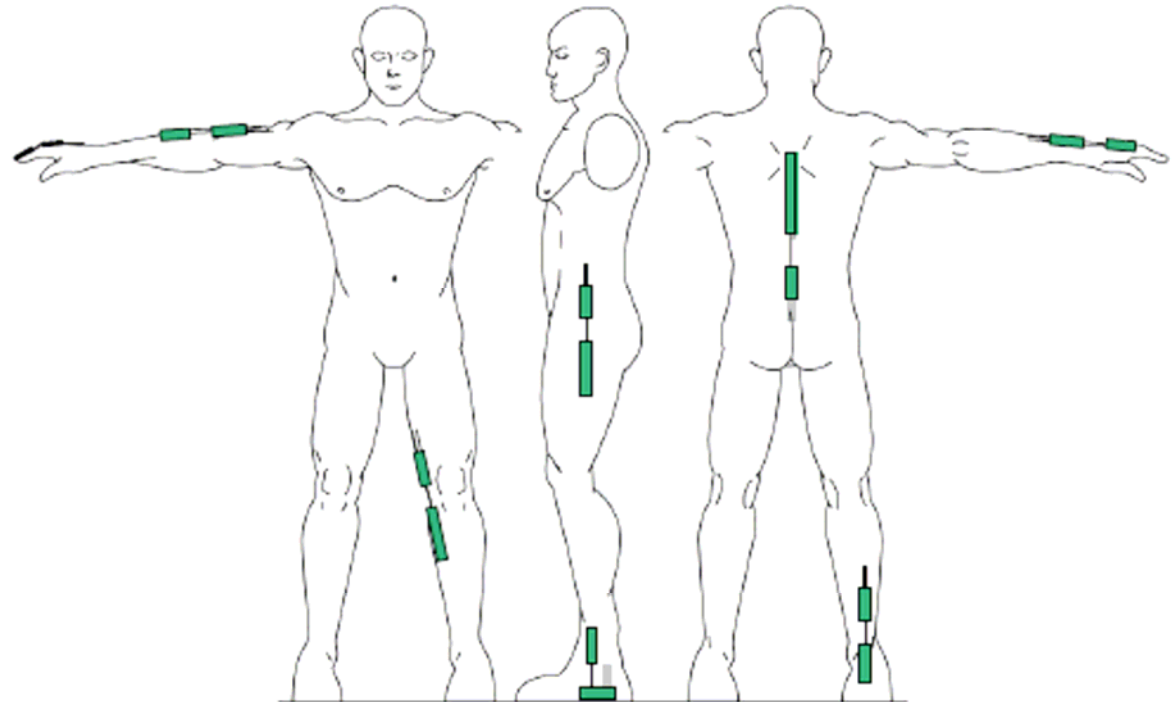
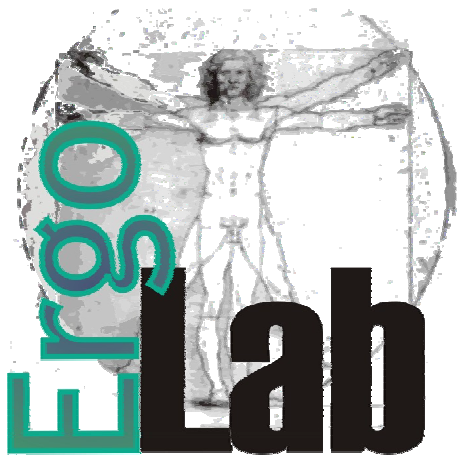
*\* Study of disorders due to repetitive movements in welding tasks*

## Consulting services:

*Diagnosis and analysis of movement in workers at risk labor situation, insurance companies.*

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May 11<sup>th</sup> 2007