Phase I: Design Report
Team 1
Meeg 301-010
Idea sketches
10/15/04
* Optimum aerobic exercise
* Minimal impact.
* Easy use.
* Total body motion. (natural running motion)

**Safety features:**
- Warm up/cool down
- Heart rate monitor
- Shut down/safety clip

- Forward & reverse motion
- Adjustable spring resistance (variety)
- Reduces stress on joints/knees. (compared to treadmills, etc.)

* Hand grips - allow natural movement, but also ensure balance.

This is the design we will focus on for this project.

Ashley Archibald
TEAM 1 Concept Idea
(Human Walking Machine)

First Sketch

Center pivot for both links to connect to

Housing can be built to incase gear

Foot place pad

Rotation 360° either direction

Open for foot to easily remove from mechanism but raised edges to hold foot in place during motion (safety)
HUMAN RUNNING MACHINE
IDEA SKETCH 2

Sarah

DOMINIC

ADAMS

ARM

LINKAGE

ELLPTICAL MOTION

LEG

FOOT REST/HELMET

DIGITAL DISPLAY OF WORKOUT PROGRESS

ADVANTAGES
- Smooth running action
- Adjustable for size
- Large

DISADVANTAGES
- $7?
Human Running Machine

Idea Sketch II (Stationary)

Back

SIDE

Swinging Motion

Means:

- Hand rests
- Digital Display

Advantages:

- Lightweight
- Ease of use
- Cheap

Disadvantages:

- Not perfect simulation of running

Damien Ashnauk
Rough Sketch of
My idea for Team 1

- Two circular cables which
  bring the feet closer to
  same point instant

idea for shoe placement

Reclined position
Keeps body relaxed

This design is just an idea of how
to make an attractive running simulator,
which is good for the body. No stress on
knees, no jolting around.