COMPETITION OBJECTIVE & STRATEGY

OBJECTIVES: TO DESIGN AND MANUFACTURE A JUMPING ROBOT TO SUCCESSFULLY COMPETE IN THE 2002 ROBO-OLYMPICS.

TO PERFORM AND COMPLETE ALL THREE EVENTS: THE HIGH JUMP, LONG JUMP AND THE OBSTACLE COURSE.

STRATEGY: STORE A LARGE AMOUNT OF SPRING ENERGY TO MAXIMIZE JUMP HEIGHT, IN SPITE OF SIGNIFICANT HANDYBOARD AND BATTERY WEIGHT.

VARIABLE SPRING COMPRESSION AND RELEASE, TO ENABLE PROGRAMMING AND OPERATION FLEXABILITY.

MAXIMIZE PERFORMANCE OF ALL COMPONENTS.

ROBOT CHARACTERISTICS

WEIGHT:	5.25 POUNDS (2.4 KILOGRAMS)
MAXIMUM SPRING FORCE:	215 POUNDS (955 NEWTONS)
TOTAL SPRING ENGERY STORAGE:	18.4 FOOT-POUNDS (25 JOULES)
MAXIMUM JUMPING DISTANCE:	12” (30.5 CM)
MAXIMUM JUMPING HEIGHT:	THEORETICAL 41” (106 CM), ACTUAL 20” (51 CM)