Remote Medication Device

A PRODUCT SOLUTION DESIGNED BY

Matthew Suffern

Problems

DANGEROUS ANIMALS:

– *Awakening during crucial moments*

– *Attacking with insufficient response time*

– *Post-surgical unapproachability*

OFF-HOURS MEDICATION:

– *Unreliable delivery of vital medication*

– *Consistency of medication schedule*

SPECIALIZED MEDICATION:

– *Difficult delivery of eye-drops*

– *Inaccessible areas of animal*

Existing Solutions

DANGEROUS ANIMALS:

– *Tranquilizer gun*

– *Sedative in syringe*

OFF-HOURS MEDICATION:

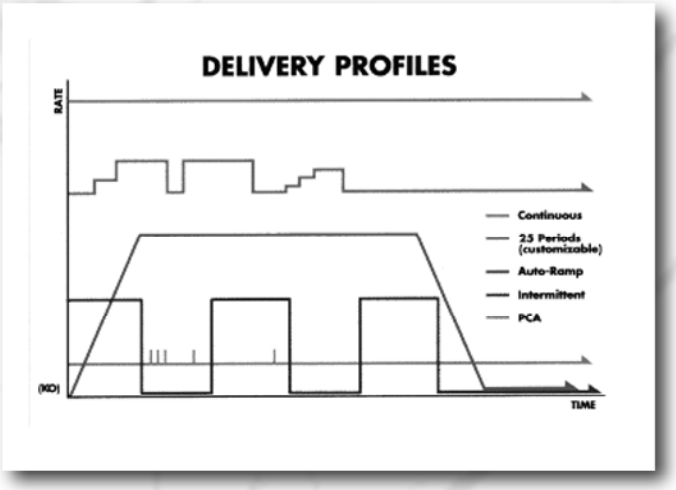
– *No dedicated veterinary solution*

– *Human solutions: Sabratek 6060 Homerun*

SPECIALIZED MEDICATION:

– *No dedicated veterinary solution (niche market)*

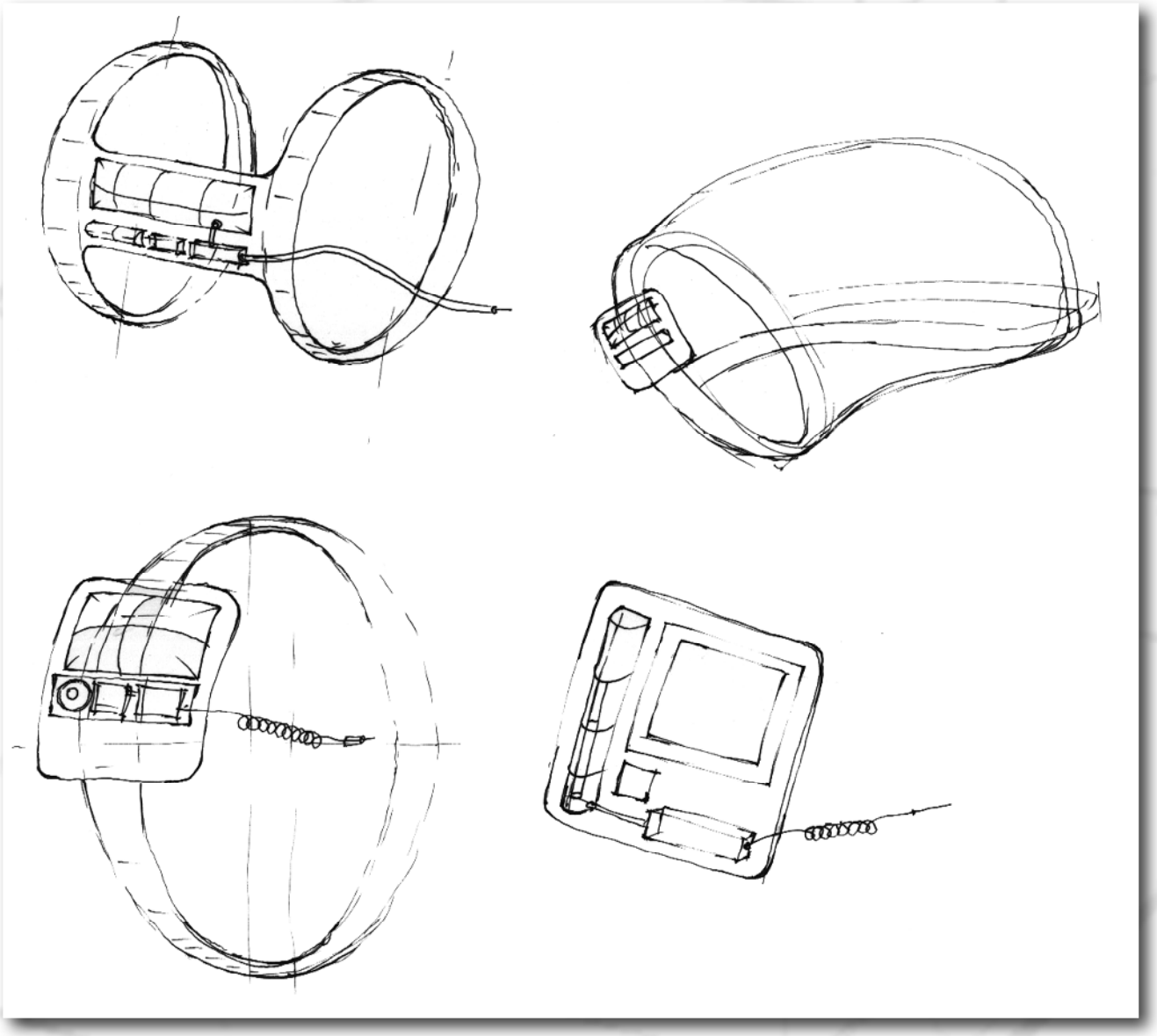
– *Much improvisation and adaptation*



Goals

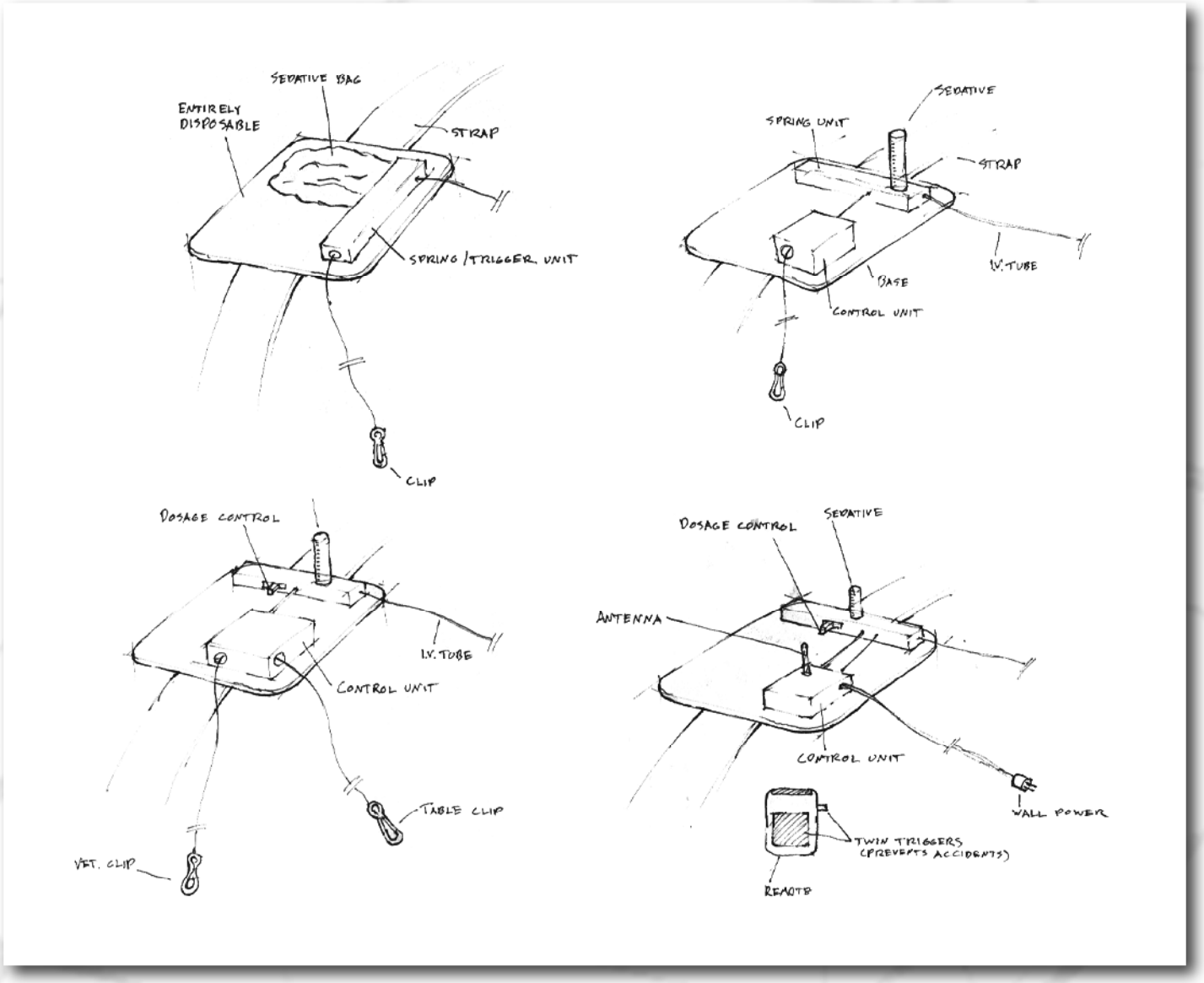
- RELIABLE
  – *For well-being of animals it must work 100% of the time*
- SIMPLE
  – *Must incorporate low-tech elements*
- CONFORMAL
  – *Must fit securely on animal*
- ADAPTABLE/VERSATILE
  – *Must lend itself to some degree of improvisation*
- MODULAR
  – *Parts must be removable for cleaning but secure when in place*
- REMOTELY ACTIVATED
  – *Activated by remote but programmable from unit*
- INTUITIVE TO USE
  – *Controls must be simple and instantly usable*
- UNOBTRUSIVE
  – *Must not intrude on surgical sites or impede animal movement*
- INEXPENSIVE
  – *Must be within the finanical means of small practices*

Concepts



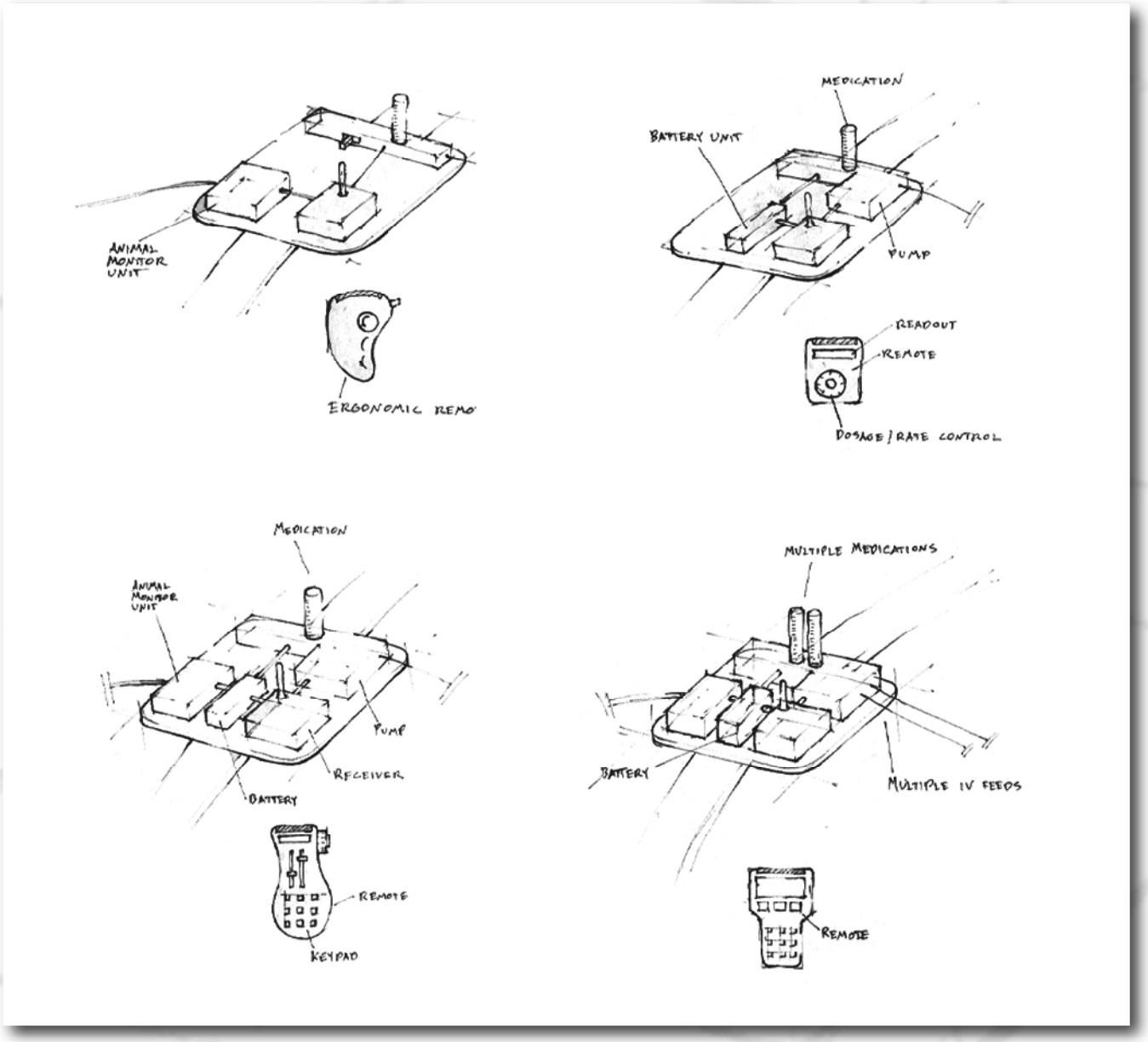
Remote Medication Device

Concepts



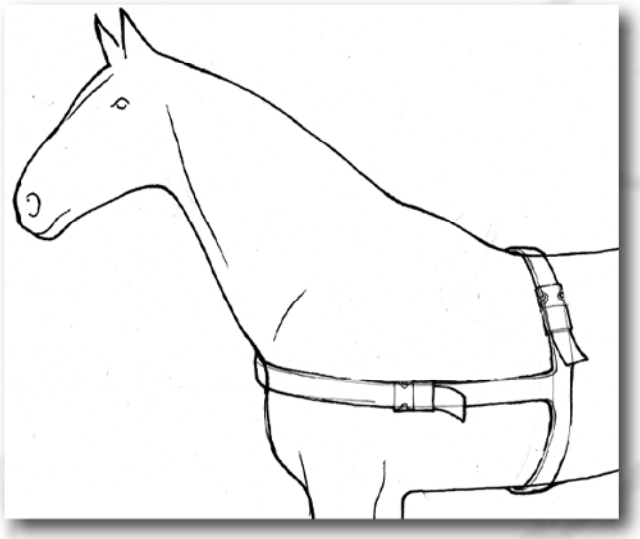
Remote Medication Device

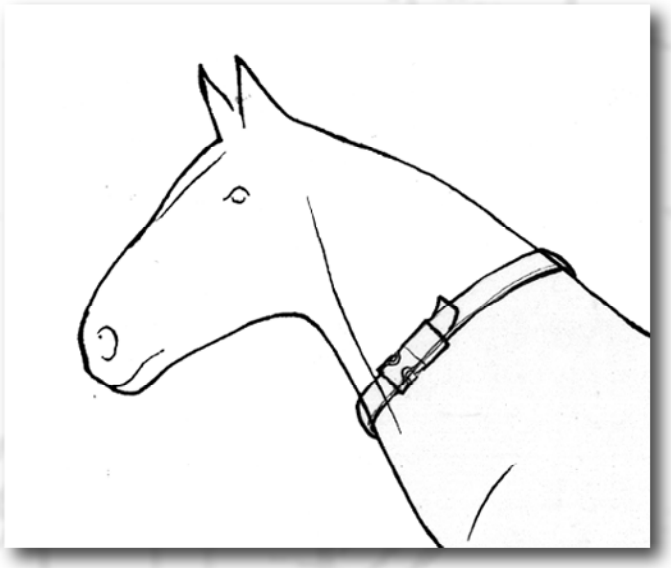
Concepts

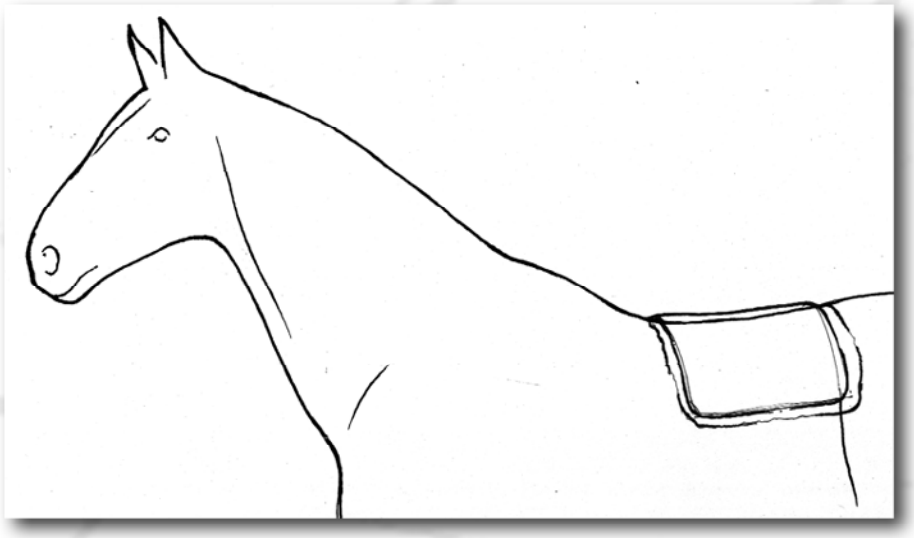


Remote Medication Device

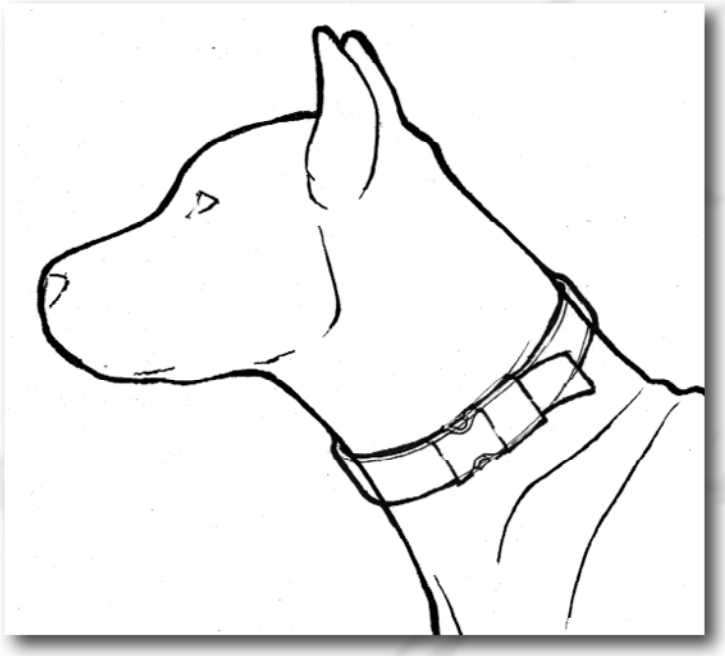
Harnesses

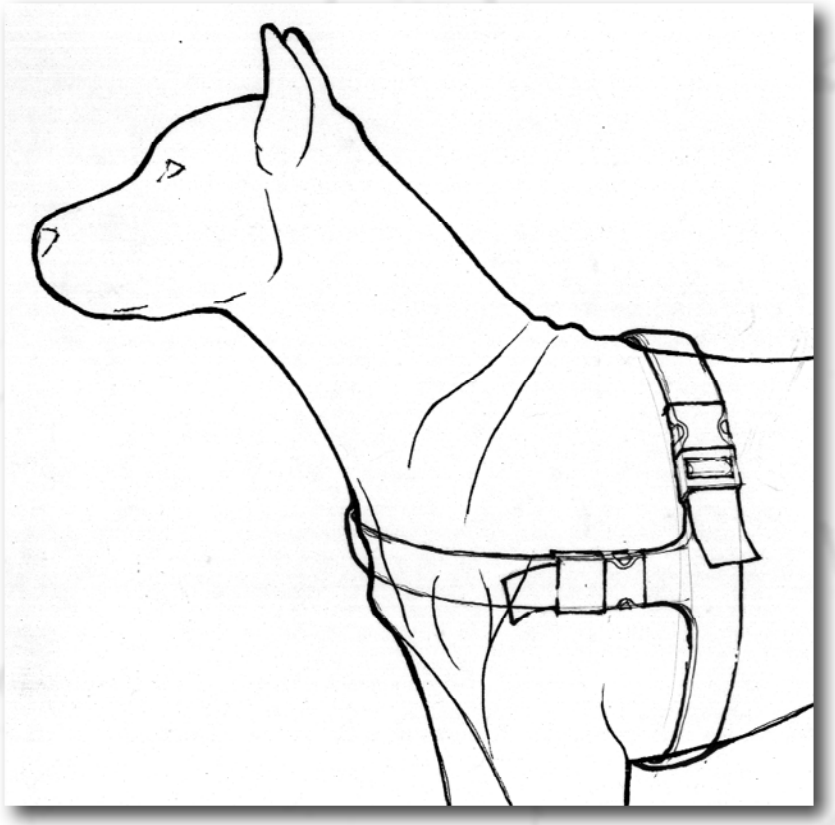




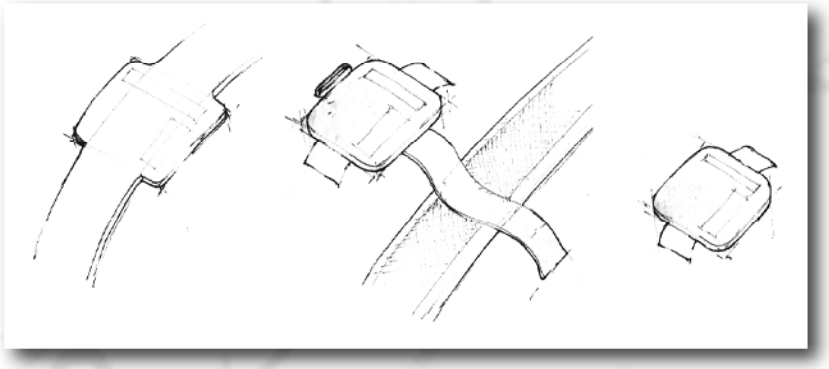


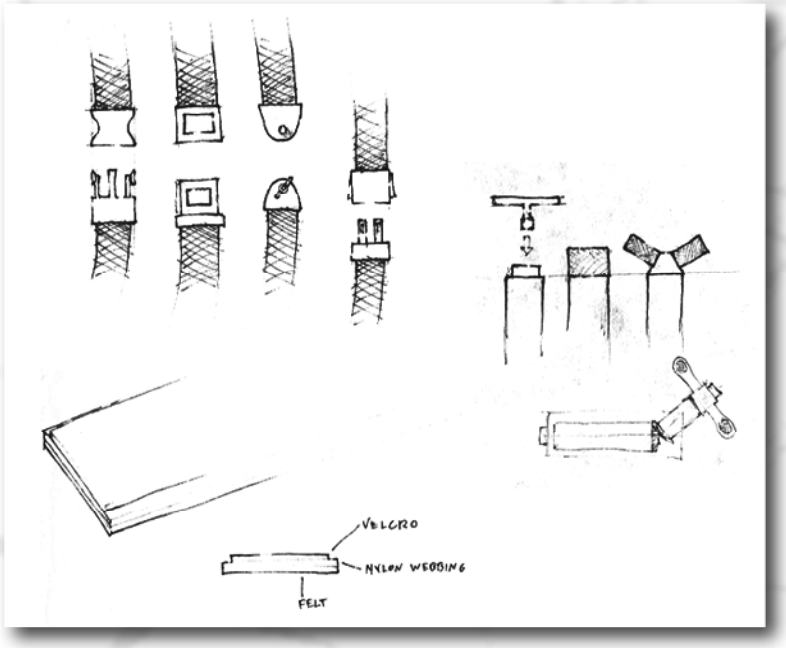
Harnesses

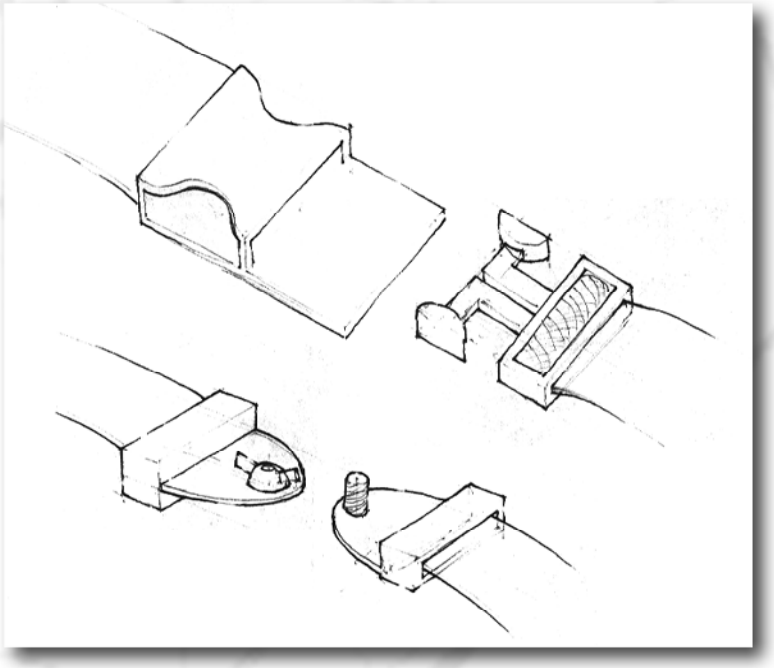




Harnesses





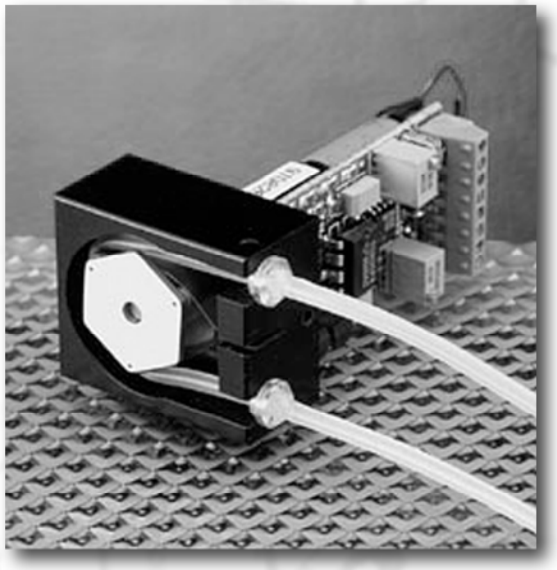


Remote Medication Device

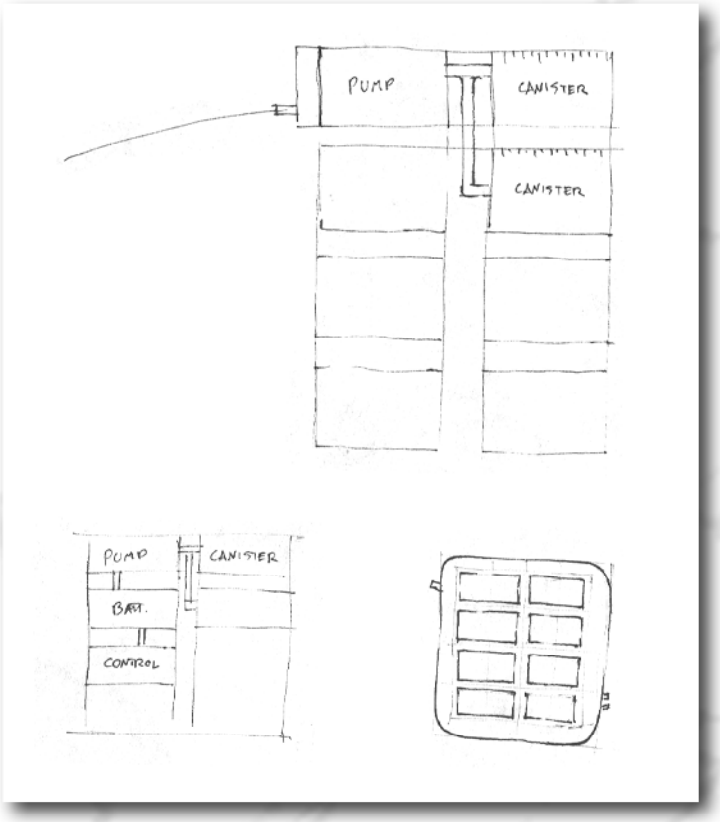
Development

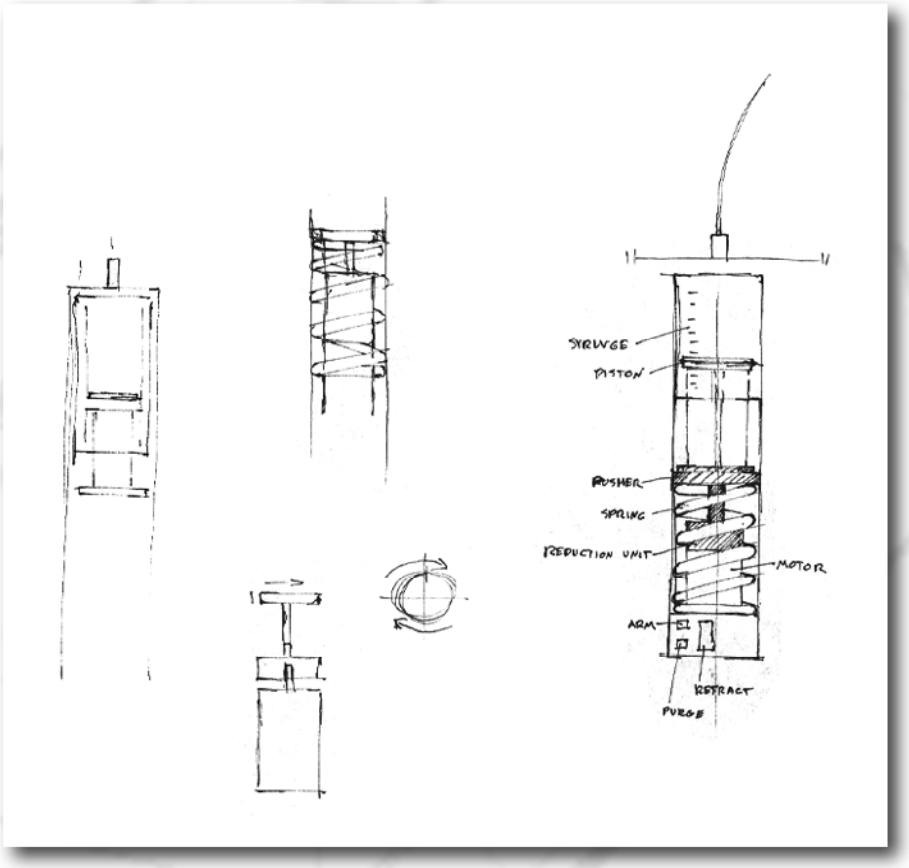
EXISTING PUMPS:

- *Instech P625 (55-72 g.)*
- *Instech S20P (7.7 oz.)*
- *Instech P720 (1 lb.)*



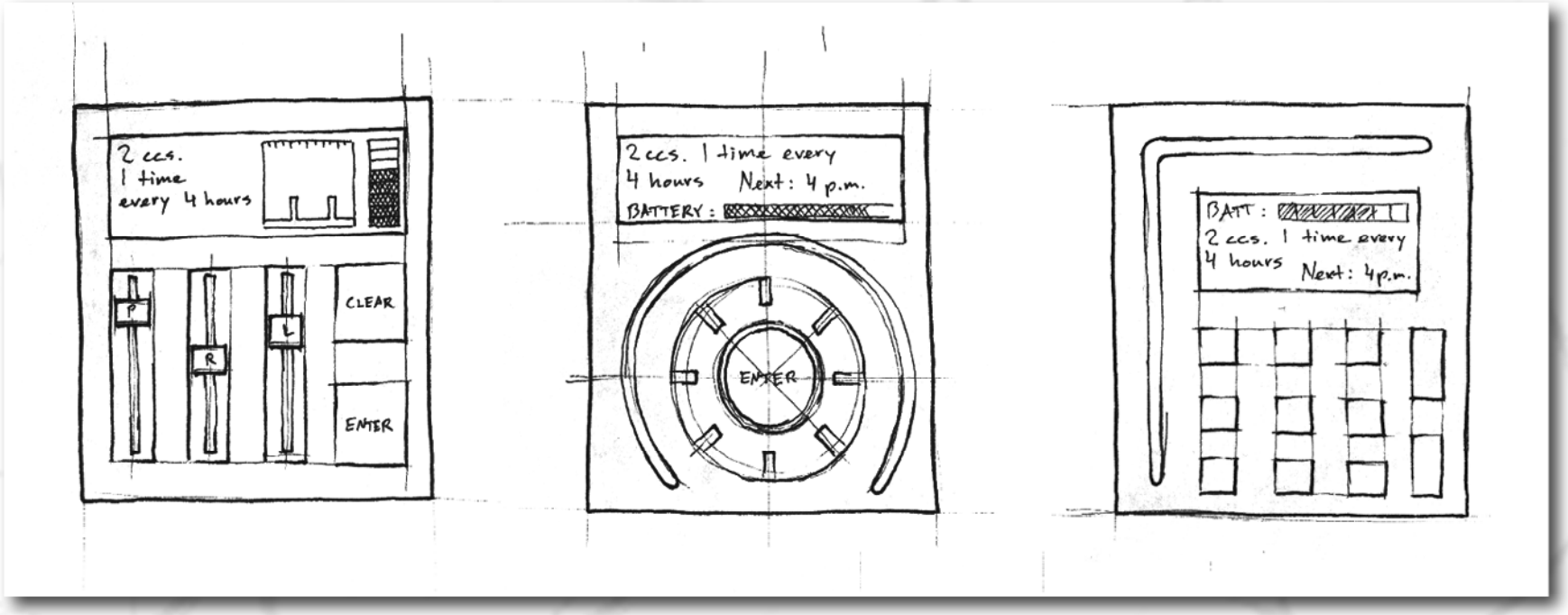
Development



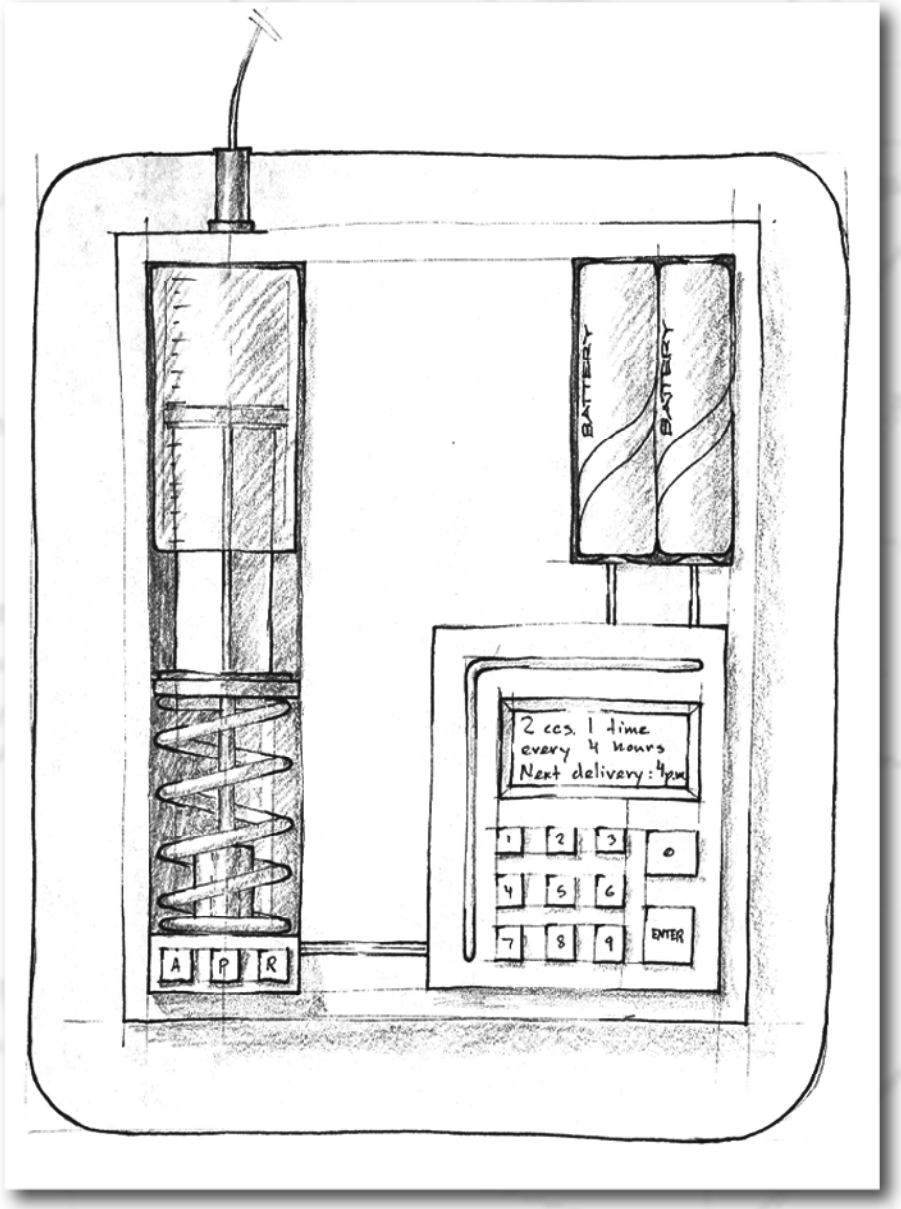


Remote Medication Device

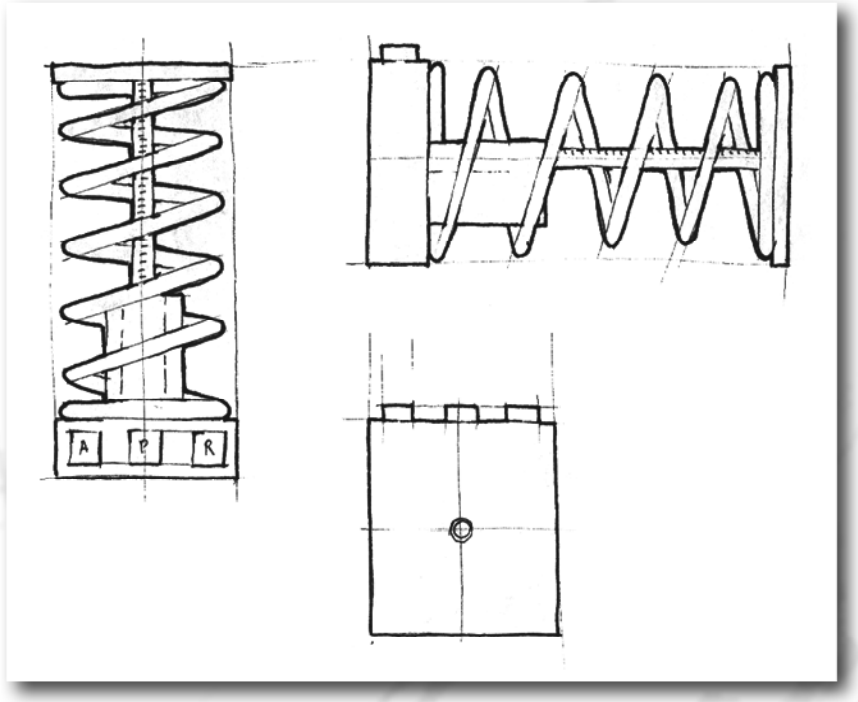
Development

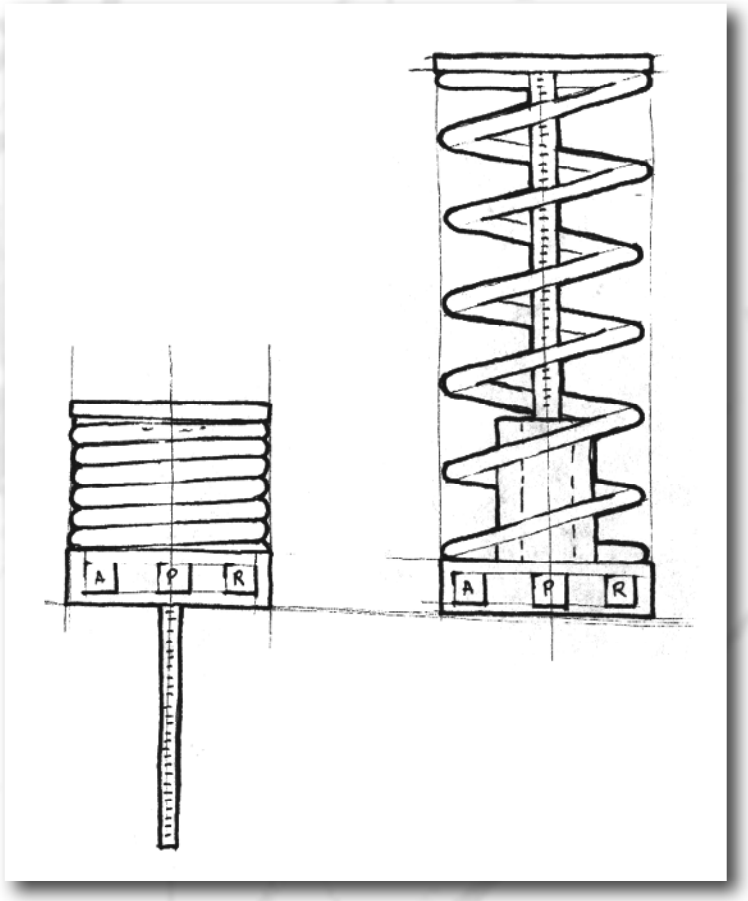


Final Solution

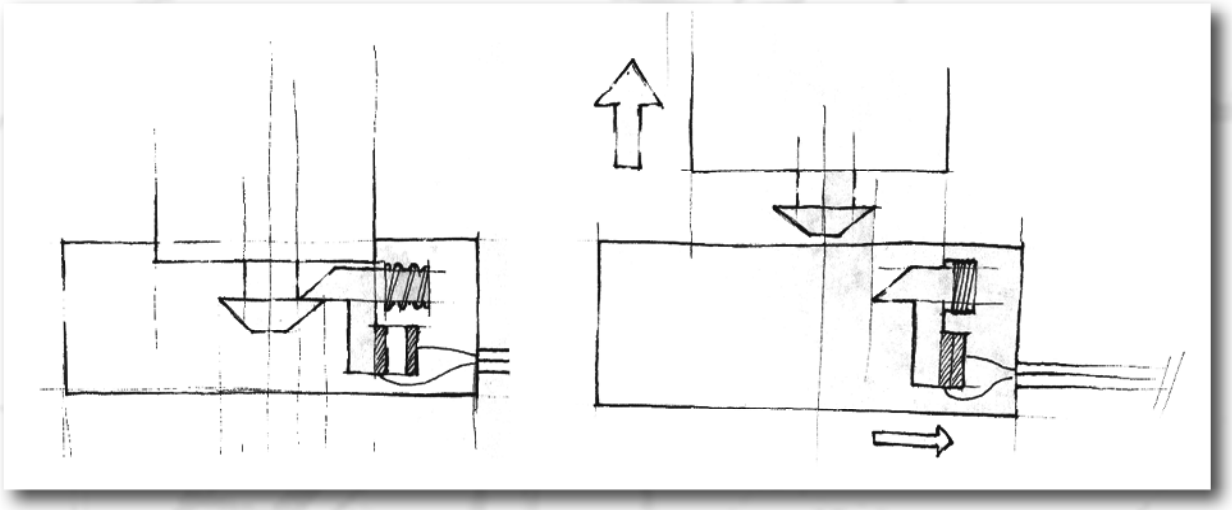


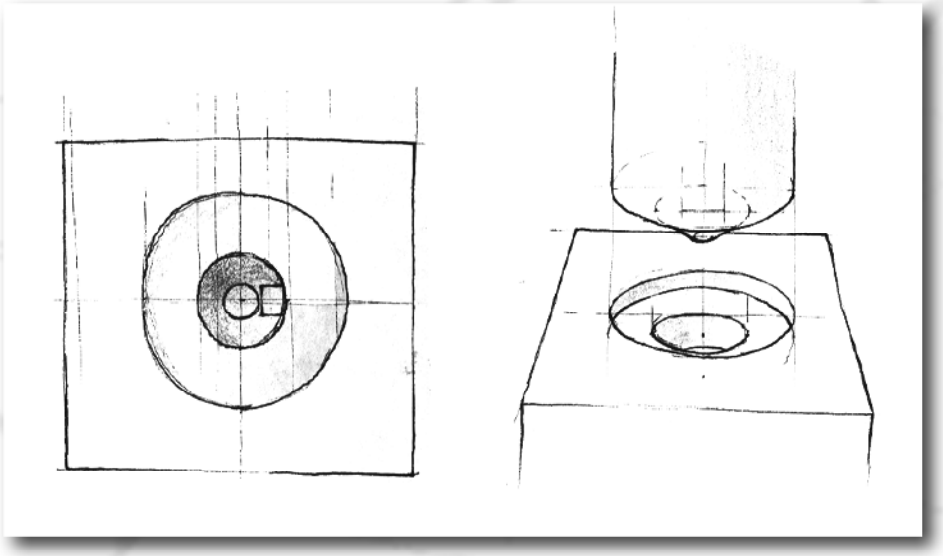
Development



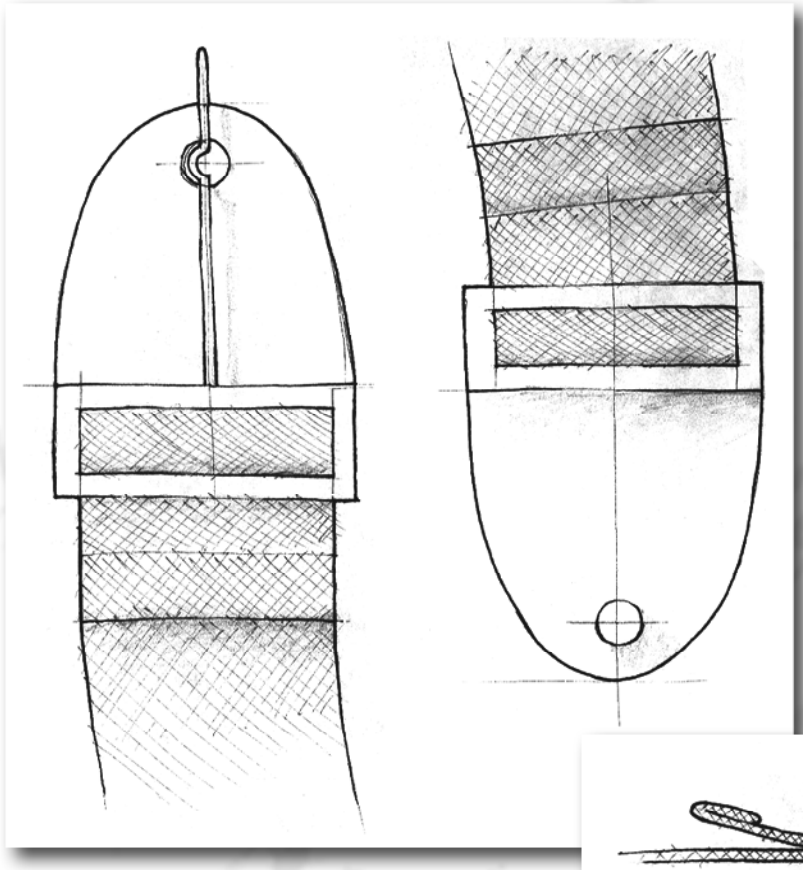


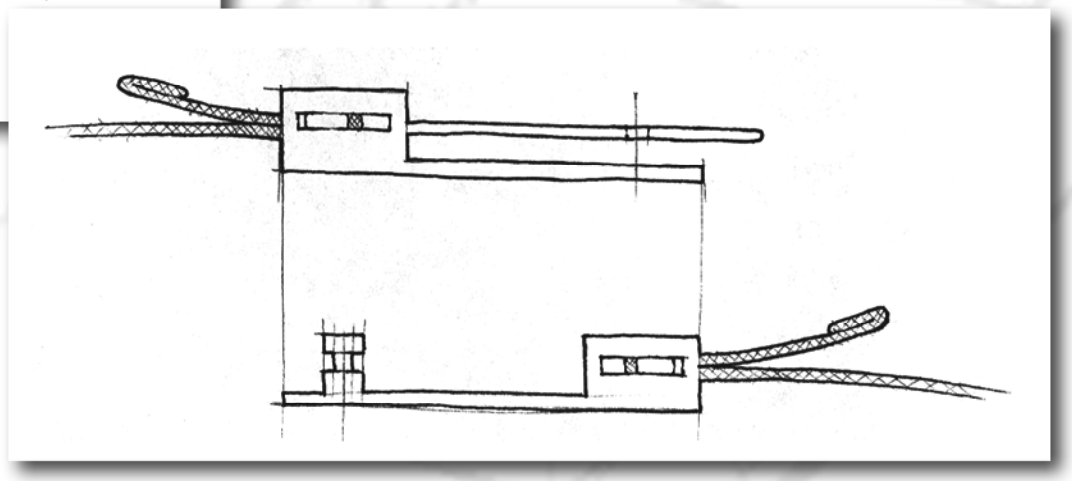
Development





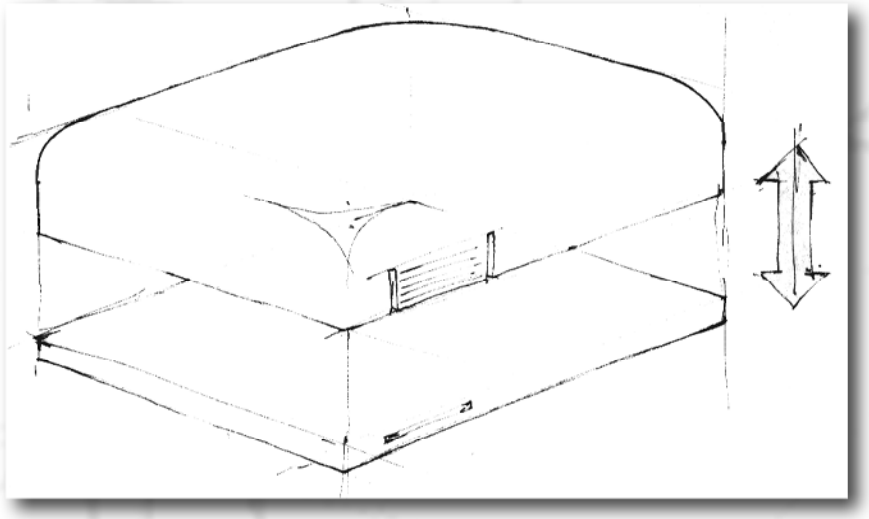
Final Solution

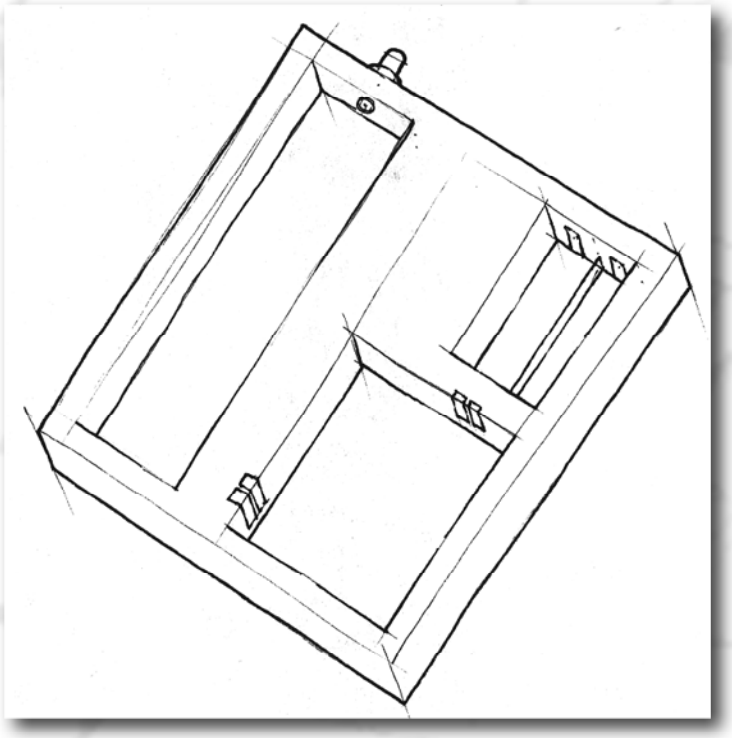


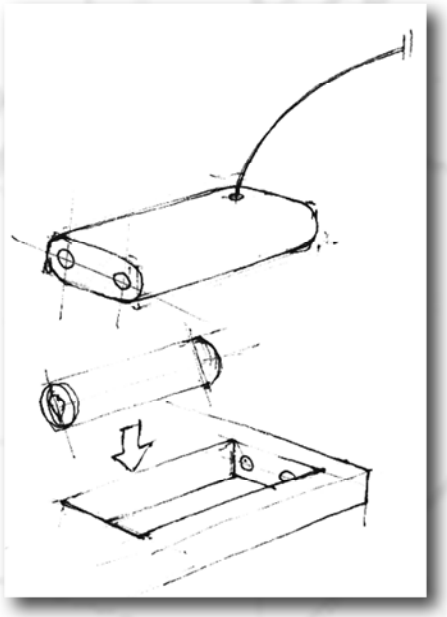


Remote Medication Device

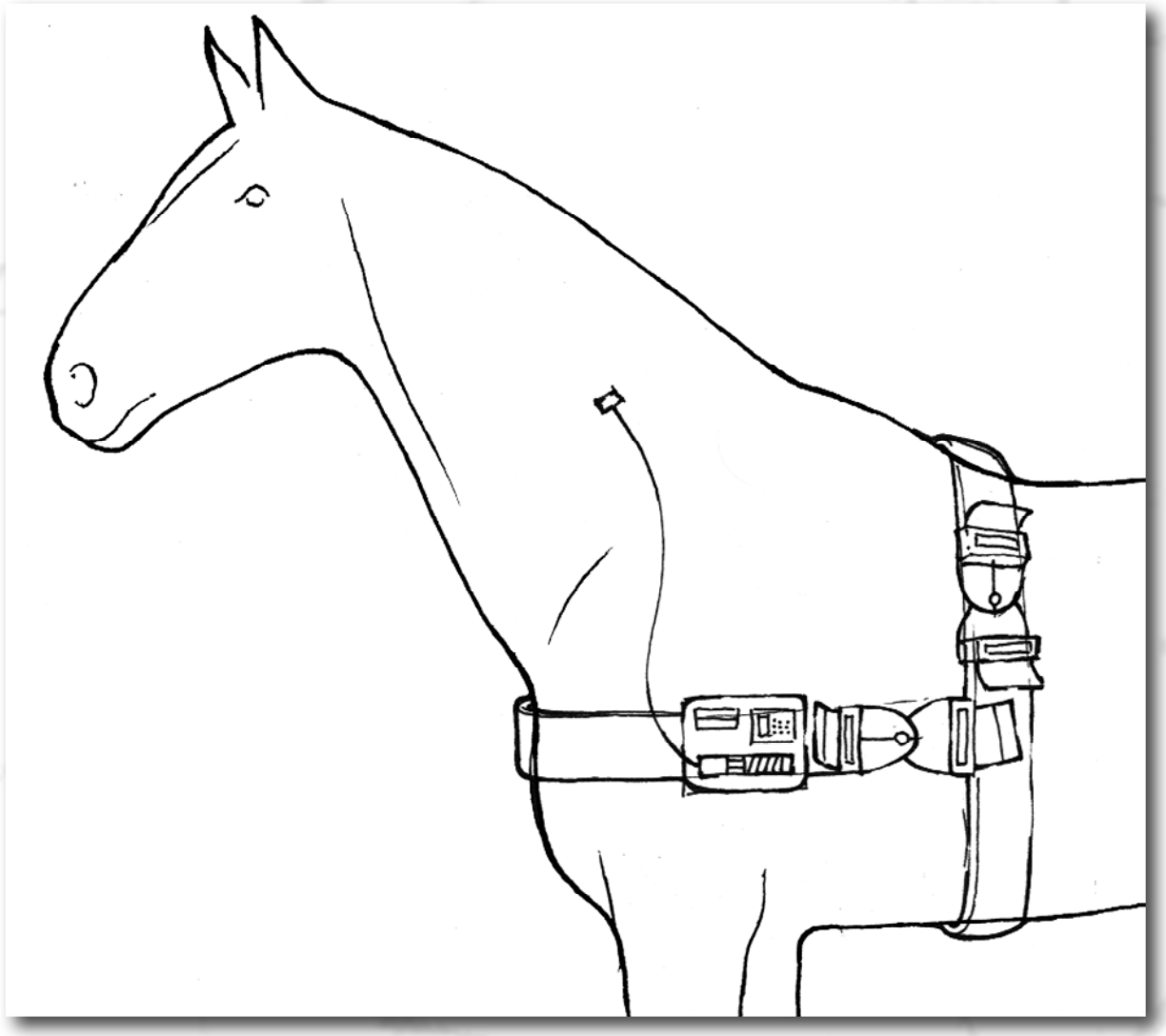
Final Solution







Final Solution



Remote Medication Device

Characteristics

BASIC DIMENSIONS:

- *Length: 6 in.*
- *Width: 4 in.*
- *Height: 1 in.*

MATERIALS:

- *Harness: Nylon mesh core, velcro outer surface, felt inner surface, stainless steel latches*
- *Tray: Injection-molded plastic*
- *Delivery System: Galvanized spring steel spring, plastic casing for base unit*
- *Control Unit: Injection-molded plastic casing*

CAPABILITIES:

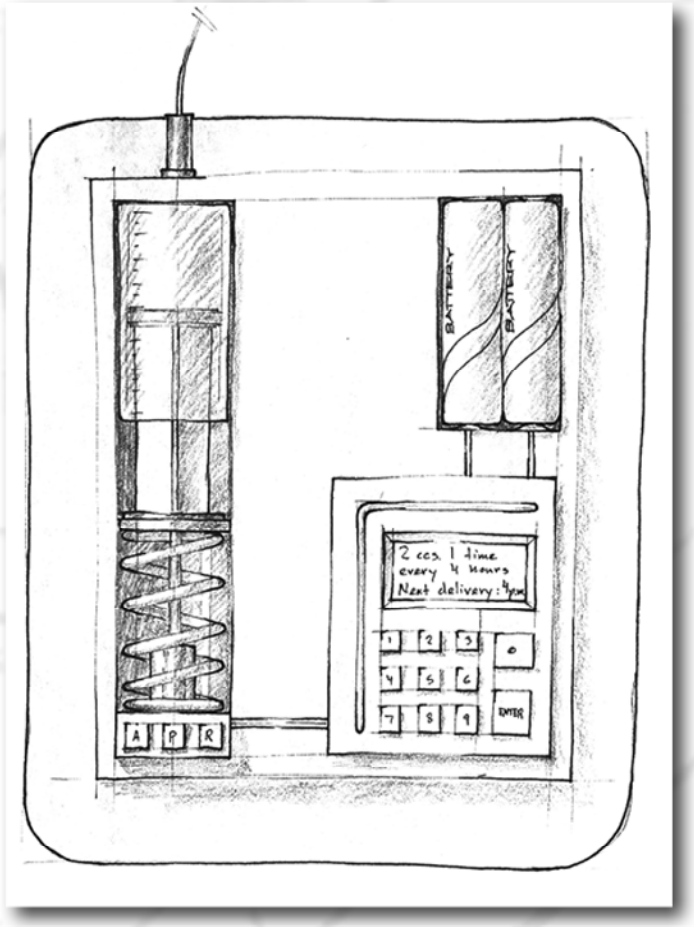
- *Instant sedation at remote trigger*
- *Consistent metered medication over longer time periods*

FEATURES:

- *Uses existing veterinary syringes*
- *No mechanical part comes into contact with medication*
- *Compact design*

EXPANSION:

- *Delivery system can be purely mechanical*
- *A/C power source*
- *Different tray sizes and configurations*



Remote Medication Device