Target Camera

Representation of selected functions

Abstract

An Android/IOS app to facilitate comprehensive and, above all else, simple tracking of firearm shots on any given target at any given range with user options available for selection of ballistics and multiple shooters to facilitate easy sight-in by providing near-instant feedback on groups, distance from point of aim, and progression.

Index

1 Cover

3 Targeted audience

4Logical arrangement of options/settings

7Versioning (and levels of features based on purchase)

8Potential permanent installation

9Description of each function/feature

10Other camera devices

11Competing products

Targeted Audience

Hunters, firearm enthusiasts, firearms competitors, amateur shooters, recreational shooters

The simplicity of the program will appeal to the hunter who sights in his/her rifle once a year before hunting season, while the available comprehensiveness will be useful to the competition shooter who reloads his/her own rounds.

Law enforcement/military will benefit with quicker range exercises, detailed digital reports on individual shooters (suitable for records jackets) and computer-controlled range exercises.

Logical arrangement of options/settings

Ideas

* Scenarios based on audio/video (Ryan)
* Recognize specific targets (i.e. Battleship targets) to enable competition (Michael)

Features

* Target
* Mode
* Orientation
* Ballistics
* Shooters
* Equipment
* Permanent installation

Top bar

* Settings
  + Simple
    - Target
    - Mode
    - Orientation
  + Advanced
    - Ballistics
    - Multiple Shooters
    - Equipment
* Save/Share
  + Data
    - Use Android's current Share API to share final target image and all associated data
  + Scenario
    - Save/Share ballistics, range, equipment, etc.
* Load Scenario
  + Saved scenarios or pre-loaded competitions
    - Provided by us or user-developed?

Target

* Display target
* Number shots
* Indicate shooter
* Provide options for logically relocating shots
* Switch current shooter

Ballistics

* Select Caliber
* Select bullet weight
* Select powder load and type
* Select pre-defined Manufactured load
  + Use tables of published manufacturer's ballistics
* Select range to target
* Select desired range for Zero

Shooters

* Select multiple numbers of shooters (maximum?)
* Define name
* Select shooter color

Equipment

* Scope brand/model
  + Advise number of clicks for required adjustments
* Iron/Open sights
  + Advise sight adjustments

Orientation

* Enable Keyhole correction
  + Select corners of target
  + Select dimensions to use (SI or American)
  + Define physical target dimensions
  + Select multiple bulls-eyes
* Define score regions

Mode

* Bench
  + Master
    - (User option) request target image
    - Receive target image
    - Apply keyhole correction
    - Identify shots
      * Edit shots out of picture based on original image
      * Label shots according to shooter, number of shots
      * Calculate physical distance from desired bulls-eye
        + Allow relocation (i.e. user aimed at wrong bulls-eye)
      * Store all data in table
    - Configure all settings
    - Allows all features
    - Allows Observers
    - Sends final target images to any Observers
  + Observer
    - Allows Target feature only
* Downrange
  + (No computation to allow for other image-taking devices)
  + Controlled by Master
  + Listen for gunshot or signal from Bench Master
  + Take picture of target
  + Send image to Bench Master

Permanent Installation

* Connect to range network
* Operate as Bench Master

Versioning (and levels of features based on purchase)

Basic version will have only the Simple featureset: Target, Mode, Orientation

$4.99

Full version will have the Advanced featureset: Simple featureset plus Ballistics, Multiple Shooters, Equipment

$10.99

Monthly contract will be available for permanent installations with option to host all data services in the Cloud. More advanced shooting scenarios will be available, and more detailed reports on shooting scores, progression, etc.

Bench modes will be free to use for all; charging enables Downrange mode (this allows a shooter to bring friends to the range without requiring additional purchases, also allows the shooter his/her own monitoring device).

Permanent installation

This system can also be used in permanent installations. Either the range can provide monitors, or require users to supply their own device to monitor, or option for both. The range can store this information themselves, or have it hosted (by us or a shooting sports association) for centralized digital recordkeeping.

Range setup will be as simple as bowling alleys: a shooter is assigned a lane and connects his/her device to the range's network, setting which lane they are in, facilitating communication with his/her specific downrange camera.

Description of each Function/Feature

Other Camera Devices

Competing products