CLAIMS:

1. An apparatus having a camera, the camera comprising:

a first lens;

a second lens; and

an optical sensor to sense ~~an~~ a first optical image from the first lens and a second optical image from the second lens; and

a first device to redirect ~~an~~ a first optical path between the first lens and the optical sensor and a second device to redirect a second optical path between the second lens and the optical sensor, such that a first portion of the first optical path, the first portion of the first optical path being between the first device and the optical sensor, is approximately perpendicular to a second portion of the first optical path, the second portion of the first optical path being between the first lens and the ~~device.~~ first device, and such that a first portion of the second optical path, the first portion of the second optical path being between the second device and the optical sensor, is approximately perpendicular to a second portion of the second optical path, the second portion of the second optical path being between the second lens and the second device;

wherein the first device is a reflector, the reflector to reflect light from the first lens to the image sensor, and the second device is a beam combiner, the beam combiner to reflect light from the second lens to the image sensor and pass light from the reflector to the image sensor; and

wherein a part of the first portion of the first optical path overlaps with the first portion of the second optical path between the second device and the optical sensor.

~~2. The apparatus of claim 1, wherein the device is s reflector.~~

~~3. The apparatus of claim 1, wherein the device is a beam combiner.~~

2. The apparatus of claim 1, wherein the second portion of the first optical path between the first lens and the first device is shorter than the first portion of the first optical path

between the first device and the optical sensor, and wherein the second portion of the second optical path between the second lens and the second device is shorter than the first portion of the second optical path between the second device and the optical sensor.

3. The apparatus of claim 1, wherein a reflective surface of the first device or the second device has convex or concave shape to act as a lens as well as to redirect the optical path.

4. The apparatus of claim 1, wherein the apparatus is a multi-function handheld device with one or more functions that are unrelated to the camera.

5. The apparatus of claim 1, wherein the first lens and the second lens are on a same surface of the apparatus.

6. The apparatus of claim 1, further comprising a first light blocking device to block light from the first lens and a second light blocking device to block light from the second lens, the first light block device and the second light blocking device to allow the camera to prevent light from the first lens and light from the second lens from being detected simultaneously by the light sensor.

7. The apparatus of claim 1, wherein:

the apparatus has a first dimension that is thinner than a second dimension of the apparatus and a third dimension of the apparatus; and

the second portion of the first optical path between the first lens and the first device and the second portion of the second optical path between the second lens and the second device are approximately parallel to the first dimension of the apparatus, and the image sensor is located in a plane that is approximately parallel to the first dimension of the apparatus.