Al-Kindi's Natural Philosophy:
The Simultaneous Existence of Matter, Motion, and Time

Al-Kindi proved the impossibility of the existence of an actual infinite body by asserting that bodies are quantitative objects, and then proving that any quantitative thing couldn't have infinity in actuality.
Time and motion are quantitative; thus, it is impossible for both to be infinite in actuality. Therefore, they are finite and time has a beginning.

Let us now follow al-Kindi's way of proving that motion and time are finite:[1]

" if there is a body, then there must of necessity either be motion or not be motion. If there is a body and there was no motion, then either there would be no motion at all, or it would not be, though it would be possible for it to be. If there were no motion at all, then motion would not be an existent. However, since body exists, motion is an existent, and this is an impossible contradiction and it is not possible for there to be no motion at all, if a body exists. If furthermore, when there is an existing body, it is possible that there is existing motion, then motion necessarily exists in some bodies, for that which is possible is that which exists in some possessors of its substance; as the (art of) writing which may be affirmed as a possibility for Muhammad, though it is not in him in actuality, since it does exist in some human substance, i.e., in another man. Motion, therefore, necessarily exists in some bodies, and exists in the simple body, existing necessarily in the simple body; accordingly body exists and motion exists.
Now it has been said that there may not be motion when a body exists. Accordingly, there will be motion when body exists, and there will not be motion when body exists, and this is an absurdity and an impossible contradiction, and it is not possible for there to be body and not motion; thus, when there is a body there is motion necessarily."

29. Premises in supporting his Arguments:
Al-Kindi, before presenting his arguments, started by offering a few premises and conclusions of previous mathematical demonstrations that are clear. Therefore they need no further proof. Some of them are:

1.The actual body of the universe is finite, and it is quantitatively finite.

2. Things that are predicated of a finite object are necessarily finite, such as: place, time, motion, and quantity.

3. If there is motion, there is of necessity a body. (I will complete this statement after al-Kindi proves it, as we will see later).

4. Motion is not only spatial (from place to place), but also some different kinds, such as: change (internal motion as chemical or biological), alteration, and the change of an object's substance, which is generation or corruption.

5. Every change or motion is a counting of the duration of the body; thus, every change and motion is temporal.

[1] Al-Kindi (1974): p. 71.

6. It is not necessary for the whole to be in motion in order to say that whole body moves. The motion of some of the parts (and the possibility of other parts to move) is enough of an indication that the whole exists in motion.

30. Structuring his argument on Motion:
Now let us go back to section 28 in order to examine and reconstruct al-Kindi's argument on Motion. What he is saying is this:

1. The existence of a body has one of these two possibilities:

    -It exists with motion.
    -It exists with no motion.

2. Al-Kindi thinks that if a body exists, then it must be of necessity that it exists with motion. Going from nonexistence to existence is motion.

3. Now, if you take the second possibility and claim that a body exists with no motion, then you have to clarify further that:

    a. either there would be no motion at all, or
    b. it would not be, though it would be possible for it to be.

Al-Kindi disproves A (there would be no motion at all):
1. If a body exists and there is no motion at all, then that means that motion does not exist.

2. However, since a body exists, motion is an existent too. (According to premise # 2, motion is one of the things predicated of the finite body.)

3. Therefore, to say that there is a body (an actual existent body) with no motion at all is an impossible contradiction. (According to # 4, motion is of many different kinds).
4. Therefore, it is impossible for a body to exist and be without motion at all.

Clarification:
The very concept of an actual finite existing body means, by definition, an object with motion. For example, a wooden chair came into existence by the act of a carpenter who made it out of various material things, came into existence through motion. The coming into being itself is motion.
A newborn baby (as a finite actual being) came into existence in a process (motion) of being born and growing up, and thus existence (coming into being) by definition is motion.

Al-Kindi disproves B (motion would not be, though it would be possible for it to be):
1. If you claim that a body exists with the possibility to be in motion and not to be in motion, then, its motion is possible to be and not to be.

2. Al-Kindi says: "when there is an existing body, it is possible that there is existing motion, then motion necessarily exists in some bodies."[2]

3. However, "that which is possible is that which exists in some possessors of its substance."[3] For example, "writing which may be affirmed as a possibility for Muhammad, though it is not in him in actuality, since it does exist in some human substance, i.e., in another man."[4]

4. Motion, therefore, necessarily exists in some bodies, and exists in the whole body.

5. Therefore, motion exists necessarily in the whole body; accordingly, a body exists and motion exists.

6. Therefore, it is impossible for a body to exist and motion not to exist.

7. Therefore, as al-Kindi said: "when there is a body there is motion necessarily."[5]

This last conclusion will be added to premise #3 in section 29. Thus 3 will read as a modified premise-proof statement of the simultaneous existence of matter and motion as follows:

If there is motion, there is of necessity a body, and when there is a body there is motion necessarily.

Remember that al-Kindi is not only trying to prove that an actual finite quantitative body necessarily has a finite motion, but also he is trying to prove that matter and motion simultaneously co-exist.

31. Is it Possible for a Body with no Motion to Start Moving?
Al-Kindi did not stop at the previous proof, but he went further to raise certain difficulties regarding matter and motion. He said:

"It is sometimes assumed that it is possible for the body of the universe to have been at rest originally, having the possibility to move, and then to have moved."[6]

Al-Kindi thinks that this opinion is necessarily false. His argument is:[7]
If the body of the universe was at rest originally and then moved, then:

A. either the body of the universe would have to be a generation from nothing, or
B. it is eternal.

To read the rest of the arguments on Matter, Motion, and time, and to read on **Al-Kindi's Cosmos between Aristotle and the Qur'an.** Please see:

The Essence of Islamic Philosophy, By Mashhad Al-Allaf.

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[2] Al-Kindi (1974): p. 71.
[3] Al-Kindi (1974): p. 71.
[4] Al-Kindi (1974): p. 71.
[5] Al-Kindi (1974): p. 71.
[6] Al-Kindi (1974): pp. 71-72.
[7] Al-Kindi (1974): p. 72.