What is claimed is:

1. An inspection system comprising:

a storage unit that stores an attention part mask indicating which part of an inspection target object to pay attention;

a calculation unit that calculates a distance between an image of the attention part mask of the object in an image of an object photographed by a photographing unit at a first time point and an image of the attention part mask in an image of the object photographed by the photographing unit at a second time point that is after the first time point, and a distance between the image of the attention part mask in the image of the object photographed by the photographing unit at the second time point and an image of the attention part mask in a target image which is an image when the object is in a normal state; and

a determination unit that compares two distances calculated by the calculation unit, and determines whether or not the object appearing in the image of the object photographed by the photographing unit at the second time point is in the normal state,

wherein the inspection system further comprises:

a user interface unit that enables edit of the attention part mask stored by the storage unit;

an alignment unit that aligns the image of the object photographed by the photographing unit with the target image of the object; and

a processing unit that performs processing of cutting out a part of the attention part mask from a predetermined image, wherein

the alignment unit makes the image of the object photographed by the photographing unit at the first time point a first image aligned with the target image of the object, and makes the image of the object photographed by the photographing unit at the second time point a second image aligned with the target image,

the processing unit cuts out a part of the attention part mask from the first image to make a first part image, cuts out a part of the attention part mask from the second image to make a second part image, and cuts out a part of the attention part mask from the target image to make a target part image,

the user interface unit

outputs the first image, the second image, the target image, the attention part mask, the first part image, the second part image, a result of determination by the determination unit, first component information for receiving a result of confirmation as to whether the result is correct, and second component information for receiving

edit of the attention part mask, and

when receiving edit of the attention part mask from the second component information, performs at least one processing of processing of changing a size of a region of the attention part mask, processing of changing a place of a region of the attention part mask, processing of changing an angle of a region of the attention part mask, processing of joining a plurality of regions when there are a plurality of regions of the attention part mask, processing of deleting a region of the attention part mask, processing of adding or deleting a discretionary pixel in the attention part mask, processing of changing an importance value of a plurality of calculation methods used by the calculation unit for calculation of a distance, processing of displaying the result of determination by the determination unit when using the attention part mask under edit, and processing of ending edit.

2. The inspection system according to claim 1, wherein

the first time point is before a start of a work related to the object, and the second time point is after an end of the work, and

the storage unit generates and stores the attention part mask of the object from a difference between the first image and the second image.

3. The inspection system according to claim 2, wherein

the calculation unit calculates a first distance between the first part image and the second part image and a second distance between the second part image and the target part image, and

the determination unit compares the first distance with the second distance that are calculated by the calculation unit, and determines whether or not the object is in the normal state.

4. The inspection system according to claim 3 comprising:

a decision unit that decides the importance value of each of the plurality of calculation methods used by the calculation unit for calculation of the first distance and the second distance.

5. The inspection system according to claim 4, wherein

the calculation unit

calculates a distance by comparing histograms created from the first part image and the second part image, calculates a distance by comparing mean values of pixel values of the first part image and the second part image, calculates a distance by comparing medians of pixel values of the first part image and the second part image,

calculates, as a distance, a sum of difference values obtained by calculating a difference of pixels having a same position between the first part image and the second part image, calculates a distance in the first part image and the second part image using a model adjusted based on learning data, and defines, as the first distance, a value of a sum obtained by multiplying each calculated distance by the importance value decided by the decision unit and adding products, and

calculates a distance by comparing histograms created from the second part image and the target part image, calculates a distance by comparing mean values of pixel values of the second part image and the target part image, calculates a distance by comparing medians of pixel values of the second part image and the target part image, calculates, as a distance, a sum of difference values obtained by calculating a difference of pixels having a same position between the second part image and the target part image, calculates a distance in the second part image and the target part image using a model adjusted based on learning data, and defines, as the second distance, a value of a sum obtained by multiplying each calculated distance by the importance value decided by the decision unit and adding products.

6. The inspection system according to claim 1,

wherein

the storage unit stores the target image, and one or more reference images that are images when the object is not in the normal state, and generates and stores the attention part mask of the object from a difference between the target image and the reference image.

7. The inspection system according to claim 1, wherein

the storage unit stores the attention part mask edited by the user interface unit.

8. An inspection method comprising:

storing, by a storage unit, an attention part mask indicating a part of an inspection target object to pay attention;

calculating, by a calculation unit, a distance between an image of the attention part mask of the object in an image in which the object is photographed by a photographing unit at a first time point and an image of the attention part mask in an image in which the object is photographed by the photographing unit at a second time point after the first time point, and a distance between the image in which the object is photographed by the photographing unit at the second time point and an image of the attention part mask in a target image that is an image when the object is in a normal state; and

determining, by a determination unit, whether or not the object appearing in the image in which the object is photographed by the photographing unit at the second time point is in the normal state by comparing the two distances calculated by the calculation unit;

enabling, by a user interface unit, edit of the attention part mask stored by the storage unit;

aligning, by an alignment unit, the image of the object photographed by the photographing unit with the target image of the object; and

performing, by a processing unit, processing of cutting out a part of the attention part mask from a predetermined image, wherein

the aligning the image of the object comprises: making the image of the object photographed by the photographing unit at the first time point a first image aligned with the target image of the object, and making the image of the object photographed by the photographing unit at the second time point a second image aligned with the target image,

the performing processing of cutting out comprises: cutting out a part of the attention part mask from the first image to make a first part image, cutting out a part of the attention part mask from the second image to make a second part image, and cutting out a part of the attention

part mask from the target image to make a target part image,

the enabling edit of the attention part mask comprises:

outputting the first image, the second image, the target image, the attention part mask, the first part image, the second part image, a result of determination by the determination unit, first component information for receiving a result of confirmation as to whether the result is correct, and second component information for receiving edit of the attention part mask, and

when receiving edit of the attention part mask from the second component information, performing at least one processing of processing of changing a size of a region of the attention part mask, processing of changing a place of a region of the attention part mask, processing of changing an angle of a region of the attention part mask, processing of joining a plurality of regions when there are a plurality of regions of the attention part mask, processing of deleting a region of the attention part mask, processing of adding or deleting a discretionary pixel in the attention part mask, processing of changing an importance value of a plurality of calculation methods used by the calculation unit for calculation of a distance, processing of displaying the result of determination by the

determination unit when using the attention part mask under edit, and processing of ending edit.